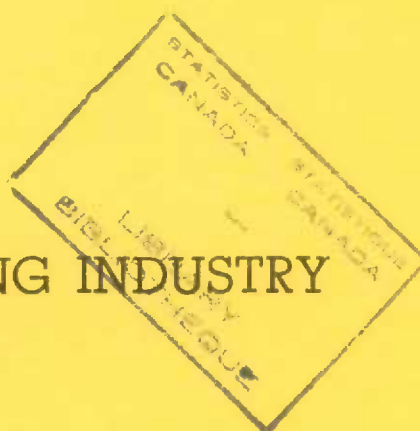


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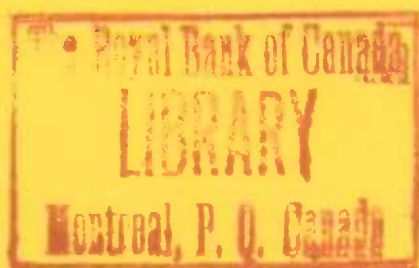
GOVERNMENT OF CANADA

THE GOLD MINING INDUSTRY  
1951



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DOMINION BUREAU OF STATISTICS — DEPARTMENT OF TRADE AND COMMERCE  
CANADA

## THE GOLD MINING INDUSTRY 1951

*Published by*

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Minister of Trade and Commerce

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Industry and Merchandising Division  
Dominion Bureau of Statistics  
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## NOTICE

The annual reports prepared by the Industry and Merchandising Division of the Bureau of Statistics are divided into 4 volumes, as follows: **Volume I**—The Primary Industries, including mining, forestry and fisheries; **Volume II**—Manufacturing; **Volume III**—Construction; **Volume IV**—Merchandising and Services. The volumes are made up of parts, and the parts in turn are subdivided according to the industries which they comprise.

Volume I consists of the following parts:

Part I—Mineral Statistics

Part II—Forestry Statistics—Operations in the Woods

Part III—Fisheries Statistics

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

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

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# THE GOLD MINING INDUSTRY

1951

Including: (a) The Alluvial Gold Mining Industry  
(b) The Auriferous Quartz Mining Industry  
(c) The Copper-Gold-Silver Mining Industry

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

During 1951 the production of gold amounted to 4,392,751 fine troy ounces valued at \$161,872,873 compared with 4,441,227 ounces valued at \$168,988,687 in 1950. The record production was in 1941 when 5,345,179 ounces were produced at a valuation of \$205,789,392.

Ontario continued to be the leading producer of gold with 56 per cent of the total. Quebec, in second position, produced 24 per cent, and British Columbia accounted for 6 per cent of the total. The other provinces ranked in the following order: Northwest Territories, Manitoba, Saskatchewan, Yukon, Newfoundland, Alberta and Nova Scotia.

During most of the year the exchange value of the United States dollar was approximately \$1.05 Canadian dollars, but towards the end of the year it declined to less than \$1.02. The average price for gold during 1951 was calculated at \$36.85 Canadian dollars.

An Order-in-Council was passed by the federal government in October, 1951, to permit the gold producers to sell 22 karat gold on the premium market. However, the Order provides for a reduction in aid payable under the Emergency Gold Mining Assistance Act if the mine elects to dispose of its gold on the premium market.

The total amount paid to the gold mines by the Emergency Gold Mining Assistance Act was approximately \$10,073,000 in 1951, compared with \$8,953,000 in 1950; \$12,550,000 in 1949; and \$10,518,000 in 1948.



## MINERAL STATISTICS OF CANADA

TABLE 1. Production of Gold, Fifty Years, 1902-1951

Year	Fine ounces	\$	Year	Fine ounces	\$
1902	1,032,161	21,336,667	1927	1,852,785	38,300,464
1903	911,559	18,843,590	1928	1,890,592	39,082,005
1904	796,374	16,462,517	1929	1,928,308	39,861,663
1905	684,951	14,159,195	1930	2,102,068	43,453,601
1906	556,415	11,502,120	1931	2,693,892	58,093,396
1907	405,517	8,382,780	1932	3,044,387	71,479,373
1908	476,112	9,842,105	1933	2,949,309	84,350,237
1909	453,865	9,382,230	1934	2,972,074	102,536,553
1910	493,707	10,205,835	1935	3,284,890	115,595,279
1911	473,159	9,781,077	1936	3,748,028	131,293,421
1912	611,885	12,648,794	1937	4,096,213	143,326,493
1913	802,973	16,598,923	1938	4,725,117	166,205,990
1914	773,178	15,983,007	1939	5,094,379	184,115,951
1915	918,056	18,977,901	1940	5,311,145	204,479,083
1916	930,492	19,234,976	1941	5,345,179	205,789,392
1917	738,831	15,272,992	1942	4,841,306	186,390,281
1918	699,681	14,463,689	1943	3,651,301	140,575,088
1919	766,764	15,850,423	1944	2,922,911	112,532,073
1920	765,007	15,814,098	1945	2,696,727	103,823,990
1921	926,329	19,148,920	1946	2,832,554	104,096,359
1922	1,263,364	26,116,050	1947	3,070,221	107,457,735
1923	1,233,341	25,495,421	1948	3,529,608	123,536,280
1924	1,525,382	31,532,443	1949	4,123,518	148,446,648
1925	1,735,735	35,880,826	1950	4,441,227	168,988,687
1926	1,754,228	36,263,110	1951	4,392,751	161,872,873

TABLE 2. Total (Cumulative) Recorded Production of Specified Metals to December 31, 1951

	Since		Quantity	Value
				\$
Gold	1858	fine ounces	117,384,360	3,602,610,553
Silver	1887	"	999,009,683	585,959,347
Copper	1886	tons	6,546,849	1,818,793,716
Nickel	1889	"	3,050,257	1,764,262,079
Lead	1887	"	5,446,568	670,825,025
Zinc	1898	—	—	772,696,688
Cobalt	1904	tons	19,379	40,535,072

TABLE 3. Production of Gold, by Months<sup>1</sup>, 1949-1951

Month	1949	1950	1951	Month	1949	1950	1951
	Fine ounces				Fine ounces		
January	310,981	353,615	376,874	July	327,235	367,766	346,690
February	308,724	349,291	349,484	August	359,931	375,924	347,383
March	343,877	382,624	374,774	September	364,689	364,361	361,386
April	327,828	369,070	365,806	October	366,880	376,315	380,827
May	333,126	373,124	371,585	November	362,772	378,294	374,888
June	344,275	368,347	364,910	December	373,200	382,496	378,144
				<b>Total</b>	<b>4,123,518</b>	<b>4,441,518</b>	<b>4,392,751</b>

1. Compiled from monthly reports received from principal operators but the amounts have been adjusted slightly to make the 12 months' total agree with the year's total as compiled from final annual reports; production includes recoveries from all types of ore.



TABLE 4. Production of Gold from Auriferous Quartz and Base Metal Mines, by Months, 1949-1951

Month	Gold production from base metal mines			Gold production from auriferous quartz mines and placer deposits		
	1949	1950	1951	1949	1950	1951
	Fine ounces					
January .....	34,838	47,250	53,696	276,143	306,365	323,178
February .....	31,309	45,191	45,476	277,415	304,100	304,008
March .....	35,859	51,410	48,364	308,018	331,214	326,410
April .....	34,115	50,208	47,214	293,713	318,862	318,592
May .....	34,444	49,827	45,737	298,682	323,297	325,848
June .....	37,897	49,321	48,257	306,378	319,026	316,653
July .....	37,235	46,150	49,277	290,000	321,616	297,413
August .....	39,888	46,039	51,735	320,043	329,885	295,648
September .....	47,384	43,283	49,840	317,305	321,078	311,546
October .....	37,675	44,625	48,715	329,205	331,690	332,112
November .....	44,304	45,788	50,844	318,468	332,506	324,044
December .....	45,804	49,235	47,554	327,396	333,261	330,590
<b>Total</b> .....	<b>460,752</b>	<b>568,327</b>	<b>586,709</b>	<b>3,662,766</b>	<b>3,872,900</b>	<b>3,806,042</b>

TABLE 5. Production of Gold<sup>1</sup>, by Provinces, 1942-1951

Year	Nova Scotia		Quebec		Ontario		Manitoba	
	Fine ounces	\$	Fine ounces	\$	Fine ounces	\$	Fine ounces	\$
1942 .....	12,989	500,076	1,092,388	42,056,938	2,763,819	106,407,032	136,226	5,244,701
1943 .....	4,129	158,967	922,533	35,517,521	2,117,215	81,512,777	91,775	3,533,337
1944 .....	5,840	224,840	746,784	28,751,184	1,731,836	66,675,686	74,168	2,855,468
1945 .....	3,291	126,704	661,608	25,471,908	1,625,368	62,576,666	70,655	2,720,218
1946 .....	4,321	158,797	618,339	22,723,958	1,813,333	66,639,988	79,402	2,918,024
1947 .....	1,271	44,485	598,127	20,934,445	1,944,819	68,068,665	72,906	2,551,710
1948 .....	188	6,580	770,625	26,971,875	2,095,377	73,338,195	106,176	3,716,160
1949 .....	64	2,304	964,184	34,710,624	2,354,509	84,762,324	137,399	4,946,364
1950 .....	65	2,473	1,094,645	41,651,242	2,481,110	94,406,236	191,725	7,295,136
1951 .....	17	626	1,067,306	39,330,226	2,463,179	90,768,146	163,914	6,040,231
	Saskatchewan		British Columbia		Yukon		Northwest Territories	
1942 .....	178,871	6,886,533	474,339	18,262,052	83,246	3,204,971	99,394	3,826,669
1943 .....	174,090	6,702,465	241,346	9,291,821	41,160	1,584,660	59,032	2,272,732
1944 .....	122,782	4,727,107	196,857	7,578,994	23,818	916,993	20,775	799,838
1945 .....	108,568	4,179,868	186,854	7,193,879	31,721	1,221,258	8,655	333,218
1946 .....	112,101	4,119,712	136,242	5,006,893	45,286	1,664,260	23,420	860,685
1947 .....	93,747	3,281,145	249,011	8,715,385	47,745	1,671,075	62,517	2,188,095
1948 .....	87,927	3,077,445	306,998	10,744,930	80,614	2,121,490	101,625	3,556,875
1949 .....	94,208	3,391,488	304,307	10,955,052	81,970	2,950,920	177,493	6,389,748
1950 .....	79,784	3,035,781	290,490	11,053,144	93,339	3,551,549	200,663	7,635,227
1951 .....	110,216	4,061,460	289,992	10,686,205	77,504	2,656,022	212,211	7,819,975

1. From all sources

Note: Annual Alberta production was less than 215 ounces for the years specified. Newfoundland production was 9,269 ounces in 1949, 9,254 ounces in 1950 and 8,515 ounces in 1951.

## MINERAL STATISTICS OF CANADA

TABLE 6. Production of Gold, by Provinces, According to Nature of Ores, 1950 and 1951

Year and Province	Placer gold	Auriferous quartz ores	Copper-gold-silver ores	Nickel-copper ores	Silver-lead and other ores	Total
Fine ounces						
1950						
Newfoundland .....	—	—	—	—	9,254	9,254
Nova Scotia .....	—	65	—	—	—	65
Quebec .....	—	743,241	332,592	—	18,812	1,094,645
Ontario .....	—	2,444,839	7	36,264	—	2,481,110
Manitoba .....	—	137,020	54,705	—	—	191,725
Saskatchewan .....	—	—	79,784	—	—	79,784
Alberta .....	152	—	—	—	—	152
British Columbia .....	14,632	238,949	12,779	—	24,130	290,490
Northwest Territories .....	20	200,643	—	—	—	200,663
Yukon .....	93,339	—	—	—	—	93,339
Canada .....	108,143	3,764,757	479,867	36,264	52,196	4,441,227
1951						
Newfoundland .....	—	—	—	—	8,515	8,515
Nova Scotia .....	—	17	—	—	—	17
Quebec .....	38	724,878	316,849	—	25,541	1,067,306
Ontario .....	—	2,422,505	80	40,394	—	2,462,979
Manitoba .....	—	126,867	37,047	—	—	163,914
Saskatchewan .....	—	—	110,216	—	—	110,216
Alberta .....	97	—	—	—	—	97
British Columbia .....	18,802	223,142	20,488	—	27,560	289,992
Northwest Territories .....	—	212,192	19	—	—	212,211
Yukon .....	77,504	—	—	—	—	77,504
Canada .....	96,441	3,709,601	484,699	40,394	61,616	4,392,751

TABLE 7. Gold Production by Provinces and Principal Areas, 1949-1951

Province and Area	1949		1950		1951	
	Fine ounces	\$	Fine ounces	\$	Fine ounces	\$
Newfoundland .....	9,269	333,684	9,254	352,115	8,515	313,778
Nova Scotia .....	64	2,304	65	2,473	17	626
Quebec:						
Gold mines .....	703,677	25,332,372	743,241	28,280,320	724,878	26,711,754
Base metal mines .....	260,507	9,378,252	351,404	13,370,922	342,428	12,618,472
Total Quebec .....	964,184	34,710,624	1,094,645	41,651,242	1,067,306	39,330,226
Ontario:						
Gold mines:						
Porcupine .....	1,047,949	37,726,164	1,100,122	41,859,642	1,062,951	39,169,744
Kirkland Lake .....	475,819	17,129,484	448,391	17,061,278	454,986	16,766,234
Larder Lake .....	314,434	11,319,624	341,081	12,978,132	352,135	12,976,175
Matachewan .....	49,526	1,782,936	50,048	1,904,326	41,984	1,547,111
Sudbury .....	32,725	1,178,100	36,930	1,405,187	23,717	873,971
Thunder Bay .....	117,863	4,243,068	131,413	5,000,265	137,291	5,059,173
Patricia .....	280,348	10,092,528	336,854	12,817,295	349,404	12,875,538
Other mines .....	35,845	1,290,420	36,271	1,380,111	40,511	1,492,830
Total Ontario .....	2,354,509	84,762,324	2,481,110	94,406,236	2,462,979	90,760,776
Manitoba:						
Gold mines .....	106,755	3,843,180	137,020	5,213,611	126,867	4,675,049
Other mines .....	30,644	1,103,184	54,705	2,081,525	37,047	1,365,182
Total Manitoba .....	137,399	4,946,364	191,725	7,295,136	163,914	6,040,231
Saskatchewan:						
Gold mines .....	14	504	—	—	—	—
Other mines .....	94,194	3,390,984	79,784	3,035,781	110,216	4,061,460
Total Saskatchewan .....	94,208	3,391,488	79,784	3,035,781	110,216	4,061,460
Alberta (placer) .....	115	4,140	152	5,784	97	3,574
British Columbia:						
Gold mines (lode) .....	260,088	9,363,168	238,949	9,092,009	223,142	8,222,783
Gold mines (placer) .....	14,497	521,892	14,632	556,747	18,802	692,854
Other mines .....	29,722	1,069,992	36,909	1,404,387	48,048	1,770,568
Total British Columbia .....	304,307	10,955,052	290,490	11,053,144	289,992	10,686,205
Northwest Territories:						
Gold mines and placer .....	177,493	6,389,748	200,663	7,635,227	212,211	7,819,345
Yukon (chiefly placer) .....	81,970	2,950,920	93,339	3,551,549	77,504	2,856,022
Total Canada .....	4,123,518	148,446,648	4,441,227	168,988,687	4,392,751	161,872,873

TABLE 8. Production of Gold and Silver by Principal Mines, 1951

Mine and Province	Ore hoisted	Material sorted (discarded)	Ore treated	Gold produced	Silver produced	Mill capacity - 24 hours	See foot-notes
	Tons			Fine ounces		Tons	
NEWFOUNDLAND:							
Base metal ores .....	324,000	—	324,000	8,515	534,519	1,350	
NOVA SCOTIA:							
Royal Canadian Mint receipts from Nova Scotia mines .....	—	—	—	17	1	—	
QUEBEC:							
Anglo-Rouyn .....	37,331	—	37,331	9,105	6,091	—	1
Belleterre .....	129,032	5,579	123,257	38,335	5,693	350	2
Bevcourt .....	65,135	—	51,447	10,424	4,228	—	3
Barnat .....	194,543	—	194,543	27,252	5,297	600	2
Canadian Malartic .....	462,205	—	462,205	38,993	17,528	1,300	2
Consolidated Beattie .....	555,800	—	555,800	48,797	23,780	1,800	2
Consolidated Duquesne .....	16,818	—	16,818	2,517	242	—	3, 4
Donalda .....	89,628	—	73,796	12,965	11,862	300	3
East Malartic .....	441,393	—	441,393	67,066	11,672	1,500	2
Elder .....	148,675	—	145,662	24,647	13	—	5
Lamaque .....	548,999	—	548,999	119,520	20,968	1,400	2
Malartic Goldfields .....	571,196	—	571,196	103,049	4,739	1,500	2
O'Brien .....	64,824	—	64,758	27,825	1,944	200	2, 6
Powell Rouyn .....	163,719	—	161,220	17,832	1,234	450	2, 5
Perron .....	29,378	—	29,378	4,826	705	425	2
Quesabe .....	59,223	95	59,128	11,909	7,263	400	2
Senator Rouyn .....	145,562	—	145,562	14,404	3,945	600	2
Sigma .....	420,154	—	420,154	74,663	15,805	1,100	2
Stadacona .....	151,489	9,223	142,266	23,292	6,772	400	2
Sullivan Consolidated .....	222,537	42,724	179,813	41,564	10,411	500	2
Total for principal gold mines in Quebec .....				718,985	160,192		
Copper-gold and other ores .....				348,321	3,994,098		
Total Quebec .....				1,067,306	4,154,290		
ONTARIO:							
Porcupine District							
Aunor .....	175,977	—	175,977	65,473	4,886	300	2
Bonetal .....	36,513	—	36,513	5,862	—	—	7
Bonwhit .....	8,068	—	8,068	2,944	—	—	7
Broulan Reef .....	172,877	3,757	169,120	51,123	3,974	—	2
Buffalo-Ankerite .....	117,836	—	118,995	25,151	1,671	1,250	2
Coniaurum .....	126,295	—	126,295	31,940	5,581	500	2
Delnite .....	139,551	—	139,278	40,413	3,060	520	2
Dome .....	688,000	—	686,000	165,747	36,927	1,850	2, 6
Hallnor .....	138,424	—	138,424	48,733	3,686	400	2
Hollinger-(Timmins) .....	929,729	—	933,081	243,157	48,434	3,900	2
Hollinger-(Ross) .....	111,940	—	112,006	20,248	38,811	300	2
Hugh-Pam .....	7,740	—	7,740	1,449	—	—	7
McIntyre .....	754,470	—	754,640	207,028	42,934	2,400	2
Pamour .....	581,746	—	581,746	55,654	4,705	1,600	2
Paymaster .....	182,603	—	174,417	37,482	11,862	600	2
Preston East Dome .....	233,040	—	233,516	60,467	7,255	800	2, 6
Kirkland Lake District							
Kirkland Lake Gold .....	124,944	—	124,944	42,036	3,955	400	2
Lake Shore .....	359,489	—	359,489	135,488	45,166	1,500	2
Macassa .....	135,440	—	135,440	44,597	9,048	400	2
Sylvanite .....	170,971	—	171,017	16,573	9,557	600	2
Teck Hughes .....	198,089	—	197,860	48,583	9,937	600	2
Toburn .....	43,855	3,330	40,525	15,543	2,252	175	2
Upper Canada .....	151,568	—	151,568	42,352	15,482	400	2
Wright-Hargreaves .....	182,210	—	182,210	79,671	17,207	1,200	2
Larder Lake District							
Chesterville .....	313,948	—	313,948	21,198	1,364	900	2
Kerr Addison .....	1,613,114	—	1,612,707	330,937	17,407	4,000	2
Matachewan District							
Matachewan Consolidated .....	259,092	—	259,092	23,186	14,230	1,000	2
Young Davidson .....	307,257	—	307,254	18,798	3,825	1,050	2

1. Shipped to Powell Rouyn mill.
2. Cyanidation.
3. Shipped to Perron Mill.
4. Shipped to Consolidated Beattie.
5. Shipped to smelter.
6. Amalgamation process.
7. Shipped to Broulan Reef mill.



TABLE 8. Production of Gold and Silver by Principal Mines, 1951 — Concluded

Mine and Province	Ore hoisted	Material sorted (discarded)	Ore treated	Gold produced	Silver produced	Mill capacity — 24 hours	See foot-notes
		Tons		Fine ounces		Tons	
<b>ONTARIO — Concluded</b>							
<i>Sudbury District</i>							
Renable .....	89,036	—	88,736	23,673	7,549	450	1
<i>Thunder Bay District</i>							
Hard Rock .....	111,998	—	111,996	9,504	816	600	1
Leitch .....	38,576	9,094	29,988	24,965	785	90	1, 2
Little Long Lac .....	103,443	1,712	101,731	26,889	2,668	300	1, 2
MacLeod-Cockshutt .....	367,973	1,426	366,547	69,939	4,353	1,200	1
Magnet Consolidated .....	22,291	—	22,291	4,855	615	150	1, 2
Theresa .....	2,225	212	2,013	982	39		
<i>Patricia District</i>							
Campbell Red Lake .....	165,374	7,738	173,143	69,563	5,068	400	1, 2
Central Patricia .....	84,802	—	84,802	24,349	2,395	400	1
Cochonour Willans .....	70,531	—	70,531	35,356	1,036	225	1, 2
Hasaga .....	142,745	10,379	133,191	14,390	4,844	400	1, 2
Madsen Red Lake .....	302,240	—	302,227	61,680	14,708	800	1, 2
McKenzie Red Lake .....	90,918	10,090	80,828	23,591	5,537	240	1
New Dickenson .....	90,502	—	90,572	37,319	2,508	290	1, 2
New Jason .....	36,441	—	36,441	12,675	1,276	150	1
Pickle Crow .....	113,442	7,739	105,645	45,783	6,858	400	1, 2
Starratt Olsen .....	150,437	—	151,187	24,698	5,024	500	1
Total for principal gold mines in Ontario .....				2,392,044	429,295		
Nickel-copper and other mines .....				70,935	4,090,799		
Total Ontario .....				2,462,979	4,520,094		
<b>MANITOBA:</b>							
Howe Sound .....	702,092	52,741	702,092	69,995	8,237	2,000	1
Ogama-Rockland .....	16,923	3,370	13,553	6,137	498	145	1
San Antonio .....	191,406	—	191,536	49,569	8,202	550	1
Copper-gold and other ores .....				38,413	596,204		
Total Manitoba .....				163,914	613,141		
<b>SASKATCHEWAN:</b>							
Copper-gold and alluvial ores .....				110,216	1,454,341		
<b>ALBERTA:</b>							
Alluvial gold .....				97	9		
<b>BRITISH COLUMBIA:</b>							
Bralorne .....	168,194	—	168,194	79,593	21,500	500	2
Cariboo Gold Quartz .....	69,842	—	69,842	24,374	2,383	350	1
Island Mountain .....	39,290	—	39,290	16,736	2,377	150	1
Kelowna Exploration (Nickel Plate) .....	115,488	—	115,488	43,429	2,922	325	1, 4
Kelowna Exploration (French) .....	7,427	—	7,427	5,417	—	—	5
Polaris-Taku .....	20,700	—	20,700	14,583	—	300	5
Pioneer .....	77,720	—	77,720	38,202	8,216	325	1
Total for principal gold mines in B.C. ....				219,334	37,398		
Placer gold .....				18,602	3,030		
Copper-gold and other ores .....				51,856	8,301,986		
Total British Columbia .....				289,992	8,342,414		
<b>NORTHWEST TERRITORIES:</b>							
Consolidated Mining & Smelting .....	121,938	—	121,938	62,642	17,872	355	1, 2
Discovery Yellowknife .....	31,915	—	31,915	20,948	2,178	100	1
Giant Yellowknife .....	147,337	—	147,337	107,781	38,392	425	1, 2
Negus .....	79,971	1,929	78,042	20,821	5,786	225	
Other ores .....				19	—		
Total Northwest Territories .....				212,211	64,228		
<b>YUKON:</b>							
Placer and silver-lead ores .....				77,504	3,442,788		
Total Canada .....				4,392,751	23,125,825		

1. Cyanidation.
2. Amalgamation process.
3. Shipped to San Antonio mill.
4. Flotation process, concentrates exported.
5. Milled at Nickel Plate mine.

TABLE 9. Gold Production of the World<sup>1</sup> - (Omitting Russia) - 1947-1951 (Taken from the Annual Report of the American Bureau of Metal Statistics)

Country	1947	1948	1949	1950	1951
Fine ounces					
North America:					
United States .....	2,320,531	2,099,178	1,996,435	2,375,130	1,996,493
Canada .....	3,070,221	3,529,608	4,123,518	4,441,227	4,328,931
Newfoundland .....	14,600	12,252			
Mexico .....	464,728	339,183			
<b>Total North America .....</b>	<b>5,870,080</b>	<b>5,980,221</b>	<b>6,525,493</b>	<b>7,224,469</b>	<b>6,718,844</b>
Central America and West Indies .....	250,000	270,000	242,000	180,000	180,000
South America:					
Brazil <sup>2</sup> .....	135,544	130,243	119,179	131,700	141,397
Chile .....	168,852	164,126	179,140	185,538	173,674
Colombia .....	383,027	335,260	359,475	379,412	430,723
Ecuador .....	55,000	70,196	80,982	83,071	
Peru .....	116,014	111,160	113,753	147,968	144,367
Guiana:					
British .....	21,111	16,518	21,098	13,740	14,689
Dutch .....	4,134	4,177	3,794	4,546	
French .....	14,918	13,625	14,265	12,249	12,056
Venezuela .....	22,409	49,730	61,377	34,465	
Other South America .....	20,000	20,000	—		
<b>Total South America .....</b>	<b>941,009</b>	<b>915,025</b>	<b>—</b>		
Europe .....	200,000	300,000	400,000	400,000	
Australia:					
New South Wales .....	50,082	52,164	51,793	51,350	49,149
Queensland .....	72,281	69,646	76,282	88,249	76,586
Victoria .....	84,709	68,580	68,426	67,826	63,697
Western Australia .....	703,886	664,985	648,425	610,333	627,777
Tasmania .....	15,051	12,904	12,152	15,578	14,446
Other Australia .....	11,645	17,225	31,979	36,201	39,308
<b>Total Australia (Commonwealth) .....</b>	<b>927,654</b>	<b>885,504</b>	<b>889,057</b>	<b>869,537</b>	<b>870,963</b>
New Guinea .....	59,202	86,556	93,045	80,099	94,082
New Zealand .....	112,260	93,903	84,874	76,527	75,182
Fiji .....	94,295	98,000	104,036	103,421	94,000
Asia:					
China .....	107,535	88,200	—		
India .....	171,782	180,852	164,151	196,848	226,233
Japan .....	55,029	69,060	84,492	132,332	189,000
Korea <sup>3</sup> .....	329,000	3,466	3,418		
Philippines Republic .....	64,441	209,225	287,844	333,991	367,000
Saudi Arabia .....	52,000	74,000	66,835	66,202	65,000
Other Asia .....	12,958	23,327	—		
<b>Total Asia .....</b>	<b>792,746</b>	<b>648,130</b>	<b>—</b>		
Africa:					
Bechuanaland .....	7,381	1,507	256	261	
Belgian Congo .....	301,438	299,767	333,847	339,408	352,300
British West Africa .....	562,614	677,480	681,606	695,190	657,200
Ethiopia .....	25,700	41,595	45,102	43,200	
French Cameroons .....	11,574	10,719	8,931	7,973	5,420
French Equatorial Africa .....	64,034	63,715	57,259	54,996	52,848
Kenya .....	21,959	23,429	20,072	31,314	19,000
Liberia .....	19,000	13,797	14,656	13,841	
Madagascar .....	1,521	2,095	2,508	1,125	1,948
Rhodesia .....	552,735	514,440	528,180	511,163	486,907
Tanganyika .....	47,300	57,557	68,989	65,127	65,583
Transvaal, Cape Colony, Natal .....	11,200,281	11,584,849	11,708,013	11,663,713	11,516,450
Aganda .....	1,432	921	871	586	223
Other Africa .....	27,065	40,800	63,900	44,400	
<b>Total Africa .....</b>	<b>12,814,024</b>	<b>13,332,671</b>	<b>13,534,190</b>	<b>13,472,297</b>	
Russia <sup>5</sup> .....	7,000,000	7,000,000	7,000,000	7,000,000	
<b>Total .....</b>	<b>29,071,279</b>	<b>29,670,020</b>	<b>—</b>		

<sup>1</sup> In compiling this table, free use has been made of the reports of the United States Director of the Mint.<sup>2</sup> Mined gold only; production of alluvial gold unknown.<sup>3</sup> Beginning 1948 South Korea only.<sup>4</sup> Comprising Gold Coast, Sierra Leone and Nigeria.<sup>5</sup> As reported by Director of the Mint.

TABLE 10. Gold Production According to Method of Computation and Recovery, 1942-1951

Year	In alluvial gold	In crude gold bullion produced at mines <sup>1</sup>	In base bullion produced at lead smelters	In blister and anode copper produced <sup>2</sup>	In ores, matte, slags, etc., exported	Total gold produced
	%	%	%	%	%	Fine Ounces
1942 .....	2.3	80.8	0.2	12.1	4.6	4,841,306
1943 .....	1.45	78.71	0.19	15.61	4.04	3,651,301
1944 .....	1.14	78.98	0.12	15.41	4.35	2,922,911
1945 .....	1.55	76.77	0.09	15.30	6.29	2,696,727
1946 .....	2.15	80.91	0.16	13.48	3.30	2,832,554
1947 .....	1.74	84.4	0.15	9.41	4.3	3,070,221
1948 .....	2.23	83.19	0.22	10.01	4.35	3,529,608
1949 .....	2.35	83.94	0.23	9.71	3.77	4,123,518
1950 .....	2.43	81.51	0.38	12.26	3.42	4,441,227
1951 .....	2.19	81.86	0.33	12.20	3.42	4,392,751

1. Includes a small quantity of gold contained in shipments of gold ores, slags, etc., to Canadian smelters.  
 2. Contains a small quantity of gold recovered from auriferous quartz ores.

TABLE 11. Estimated Average Monthly Value of an Ounce of Fine Gold, Expressed in Canadian Funds, 1939-1951

Month	1939	1940-1945	1946	1947-1948	1949 <sup>1</sup>	1950	1951
	Dollars						
January .....	35.30	38.50	38.50	35.00	35.00	38.50	36.81
February .....	35.19	38.50	38.50	35.00	35.00	38.50	36.73
March .....	35.13	38.50	38.50	35.00	35.00	38.50	36.65
April .....	35.15	38.50	38.50	35.00	35.00	38.50	37.07
May .....	35.13	38.50	38.50	35.00	35.00	38.50	37.26
June .....	35.07	38.50	38.50	35.00	35.00	38.50	37.42
July .....	35.06	38.50	35.35	35.00	35.00	38.50	37.12
August .....	35.01	38.50	35.00	35.00	35.00	38.50	36.96
September .....	37.21	38.50	35.00	35.00	36.52	38.50	36.94
October .....	38.43	38.50	35.00	35.00	38.50	36.86	36.78
November .....	38.50	38.50	35.00	35.00	38.50	36.43	36.53
December .....	38.50	38.50	35.00	35.00	38.50	36.63	35.89
Yearly average .....	36.14	38.50	36.75	35.00	36.00	38.05	36.85

1. United States dollar equivalent to \$1.10 Canadian funds from September 18, 1949 to October 1, 1950.

TABLE 12. Precious Metals Consumed by the Jewellery and Silverware Industry, 1948-1950

Material	Cost at works		
	1948	1949	1950
	\$	\$	\$
Fine gold .....	5,882,780	5,578,690	8,912,334
Gold alloys .....	636,185	917,037	1,112,829
Fine silver .....	2,898,952	4,618,640	4,403,015
Silver alloys and sterling .....	3,037,540	4,095,635	3,509,982
Platinum .....	469,408	434,730	523,275
Old gold, jewellers' findings, waste and scrap refining .....	1,571,467	2,327,295	2,023,129
Gold-filled wire and stock .....	348,176	235,867	210,835
Precious and semi-precious stones .....	2,168,413	2,623,783	2,372,374



## EMERGENCY GOLD MINING ASSISTANCE ACT

(Taken from the "Report on the Administration of the Emergency Gold Mining Assistance Act" of the Department of Mines and Technical Surveys)

The purpose of The Emergency Gold Mining Assistance Act of 1948 was to assist the Canadian gold mine operators in meeting the greatly increasing post-war costs of production of gold, for which there had been in mid-1946 a reduction in price to \$35 per fine ounce from the price of \$38.50 per fine ounce

that had been paid by the Royal Canadian Mint since September 1939, and for which there had been no later compensating increase in price. It was designed primarily to assist the high-cost or marginal mines to continue in operation over a difficult period and to maintain their dependent communities.

## Amendments to the Act and Regulations

The Act received Royal Assent on May 14, 1948, and came into force by proclamation on June 15, 1948. It authorized the then Minister of Mines and Resources to make assistance payments to operators of gold mines in respect of gold produced from their mines and sold to the Royal Canadian Mint, or exported from Canada and sold, during each of 3 designated years which were the calendar years 1948, 1949, and 1950. The Emergency Gold Mining Assistance Regulations, made by the Governor in Council under the authority of the Act, were approved by Order in Council P.C. 2664, June 11, 1948. The Act

was amended by Chapter 20, 13 George VI (Second Session), which received Royal Assent on December 10, 1949, and by Chapter 49, 15 George VI (First Session), the latter which received Royal Assent on June 30, 1951, authorizing the Minister of Mines and Technical Surveys to make assistance payments on a modified basis to gold mine operators in respect of gold produced and sold during the calendar or designated year 1951. The Regulations have been amended by Orders in Council P.C. 1753, April 12, 1950, and P.C. 3925, July 31, 1951.

## Basis for Making Assistance Payments in Respect of Gold Produced and Sold in the Designated Years 1948, 1949, and 1950

A gold mine was defined for the purpose of the Act as one whose value of gold output for the designated year was 70 per cent or more of its total value of production. The amount of assistance payable to a gold mine operator in respect of gold produced and sold in each of the designated years 1948, 1949, and 1950, subject to a deduction described later, was determined by multiplying the "rate of assistance" for the year by part of the number of ounces of gold so produced and sold. The "rate of assistance" for each of the designated years amounted to 50 per cent of the amount by which the average cost of production of gold per ounce for the year exceeded \$18, with a provision that in no case was the "rate of assistance" to exceed \$16. A "rate of assistance" that thus increased with the cost of production provided relatively larger assistance benefits to the high-cost or marginal mines.

For the designated years 1948, 1949, and 1950 the "rate of assistance" applied to the number of ounces of gold by which the number of ounces produced from the mine and sold in the designated year exceeded two-thirds of the number of ounces produced from the mine in the "base year", or to one-third of the number of ounces produced and sold in the designated year, whichever was the greater. In the case of old producing mines the "base year" was the period of 12 months ending on June 30, 1947, or if the mine was idle during that period, the "base year" was the period of 12 months beginning on the day when production was resumed after June 30, 1947. In the case of a new mine commencing production on or after July 1, 1946, the "base year"

was its first year of production the beginning of which was determined as required for the purpose of tax exemption under Section 4(x), Income War Tax Act, or Section 74, Income Tax Act. In the case of a new mine the rate of assistance applied to each ounce of gold produced and sold in that part of a designated year that was also part of its first year of production.

For the purpose of the Act the cost of production of gold from the mine was the cost incurred by the operator properly attributable to the gold produced from the mine during the period. This included mining, milling, smelting, refining, transportation, and administration costs; also amounts in respect of depreciation and amortization of pre-production and deferred development expenses, and costs of exploration and development in the mine, as determined in accordance with the Regulations.

During the period from September 20, 1949, when the Canadian dollar was devalued, until September 29, 1950, prior to freeing it from exchange control, the gold operators received \$38.50 per ounce for gold sold to the Royal Canadian Mint, or \$3.50 per ounce more than in the period when the Act came into force. Although they received this increase in price and the full assistance payments in respect of gold produced and sold in the last quarter of 1949, amendments to the Act in 1949 and 1951 provided that the assistance payments for the designated year 1950 would in each case be the amount calculated as originally provided less \$3.50 for each assistance ounce of gold produced from the mine and sold during the first 9 months of the year.



### Basis for Making Assistance Payments in Respect of Gold Produced and Sold in the Designated Year 1951

Chapter 49, 15 George VI (First Session). An Act to Amend The Emergency Gold Mining Assistance Act, given Royal Assent on June 30, 1951, provided for the continuation of assistance payments in respect of gold produced and sold in the calendar or designated year 1951, but on a modified basis. These modifications were designed to reduce relatively the payments made to the low-cost mines, and included.

- (1) A reduction in the rate of assistance to 50 per cent of the amount by which the average cost of production of gold per ounce for the year exceeded \$22, the rate of assistance in no case to exceed \$11.50;
- (2) An increase in the assistance ounces to the number by which the production ounces for the year 1951 exceeded one-half the production ounces of the mine in its base year or to one-

half the number of ounces produced and sold in the year, whichever was the greater; and

- (3) A new base year, being one of the calendar years 1948, 1949, or 1950 as the operator of the mine elected, if the first year of production of the mine commenced on or before January 1 of the year elected, and the mine had been in production for more than 6 months during the year. If none of these calendar years could thus be elected, the base year was the first period of 12 months following July 1, 1950, in which the mine was in production for more than 6 months.

The base year of a new mine continued to be the first year of production, as determined for the purposes of Section 74, Income Tax Act, and the rate of assistance continued to apply to each ounce of gold produced from the mine and sold during that part of 1951 that was also part of the first year of production.

### Reductions in Amounts of Assistance Payable in Respect of Gold Produced in the Last Quarter of 1951 that Was Sold by the Mine Operator on the Premium Market

Under Order in Council P.C. 5774, October 26, 1951, which prescribed Mint Custom Refining and Storing Regulations, a gold mine operator could elect to sell gold on the premium market in Canada or outside Canada, subject to The Gold Export Act, and could avail himself of the refining and storage facilities therein made available. An operator was permitted to elect to deliver gold produced from his mine on or after the first day of October, November,

or December, 1951, to the Royal Canadian Mint under these regulations. In so electing, the operator in effect also instructed the Minister of Mines and Technical Surveys to deduct from the amount of assistance normally payable in respect of gold produced and sold in 1951, the proportionate part attributable to the gold produced on and after the elected date and delivered to the Mint under these regulations.

TABLE 13. Emergency Gold Mining Assistance Act - Estimated Assistance Payable

Province	1948	1949	1950	1951
	Dollars			
Quebec .....	2,898,388	3,470,791	2,593,399	2,625,836
Ontario .....	5,010,619	5,868,450	4,015,799	5,287,134
Manitoba .....	159,681	784,474	597,013	427,508
British Columbia .....	1,245,162	1,090,705	819,061	678,351
Northwest Territories .....	919,418	968,846	146,777	943,254
Yukon .....	285,327	366,693	181,505	111,824
Canada .....	10,518,595	12,549,959	8,953,554	10,073,907

### THE ALLUVIAL GOLD MINING INDUSTRY - 1951

Most of the alluvial gold was produced in the Yukon and British Columbia; small quantities were recovered in Alberta and in the Northwest Territories.

In 1951 a total of 96,441 troy ounces of fine gold were recovered from crude gold obtained from Canadian alluvial deposits. This represented a decrease of 10.8 per cent from the preceding year. Reviewing the past twenty years it is noted that the peak of production of placer gold occurred in 1939, and that the lowest annual output was in 1944.

**Quebec** - After many years of no production there was a recorded output of 38 ounces in 1951.

**Saskatchewan and Alberta** - The small amount of gold, considered as being placer in origin, received at the Royal Canadian Mint, Ottawa, is assumed to have come from along the North Saskatchewan River. There has been activity in this district, in the vicinity of Edmonton, dating from about 1860.

**British Columbia** - It has been found impractical to obtain complete reports for each individual placer mining operation in British Columbia inasmuch as a considerable quantity of the crude placer gold is recovered annually by prospectors of no fixed abode who, in many instances, market their recoveries through local merchants and banks. Recoveries in 1951 were made chiefly from deposits located in the Atlin and Cariboo districts. Output was estimated at 18,802 fine ounces.

**Yukon** - About 80 per cent of the placer gold recovered in Canada during 1951 was found in the creeks of the Yukon. Production in 1951 totalled 77,504 fine ounces.

About 362 persons were employed in this industry in 1951 and their earnings amounted to \$1,553,103. The total number of man-hours worked in 1951 was 1,547,017.

TABLE 14. Summary Statistics for Alluvial Gold Mining, 1950 and 1951

	1950			1951		
	British Columbia	Yukon	Alberta, Saskatchewan and Northwest Territories <sup>1</sup>	British Columbia	Yukon	Alberta, Northwest Territories <sup>1</sup> and Quebec
Number of firms and individual operators <sup>2</sup> .....	42	16	—	—	—	—
Number of employees .....	106	305	—	69	293	—
Salaries and wages paid ..... \$	326,082	1,272,793	—	273,236	1,279,867	—
Electricity generated for own use ..... K.W.H.	—	1,577,300	—	120	1,517,100	—
Electricity generated for sale .....	—	—	—	—	—	—
Crude gold recovered <sup>3</sup> ..... fine ounces	14,632	93,339	172	18,802	77,504	135
Quantity of material handled ..... cu. yds.	494,066	7,860,497	—	335,487	7,266,422	—
Length of ditches <sup>4</sup> ..... miles	26	49	—	—	—	—
<b>Total gross value of alluvial products</b> ..... \$	<b>569,917</b>	<b>3,568,056</b>	<b>6,558</b>	<b>695,719</b>	<b>2,871,860</b>	<b>4,937</b>
Fuel and Electricity used ..... \$	44,299	67,772	—	33,641	11,037	—
Process supplies used ..... \$	60,091	310,924	—	84,320	423,510	—
Cost of freight and express on dust, nuggets, bullion, etc., shipped <sup>3</sup> ..... \$	2,505	20,988	—	1,662	15,349	—
Cost of smelter, refinery and mint treatment on material shipped <sup>3</sup> ..... \$	3,848	21,921	—	3,528	48,127	—
<b>Total net value of alluvial products</b> ..... \$	<b>459,174</b>	<b>3,146,451</b>	<b>6,558</b>	<b>572,568</b>	<b>2,373,837</b>	<b>4,937</b>

1. Represents receipts of fine gold at Dominion Assay office, Vancouver, British Columbia, or Royal Canadian Mint, Ottawa, Ontario.

2. In addition to the number shown in the table, there are numerous small operators from whom returns were not obtainable.

3. Information not completely available.

4. Includes flume in use.

TABLE 15. Alluvial Gold Recovered and Quantity of Material Handled<sup>1</sup>, 1942-1951

Year	British Columbia				Yukon			
	Material handled <sup>2</sup>	Gold recovered	Ounces per cu. yd.	Value per cu. yd.	Material handled <sup>2</sup>	Gold recovered	Ounces per cu. yd.	Value per cu. yd.
	cu. yds.	Fine ounces		\$	cu. yds.	Fine ounces		\$
1942 .....	1,884,887	26,323	0.0139	0.5352	11,875,833	83,198	0.0070	0.2695
1943 .....	754,202	11,680	0.0156	0.6006	8,028,117	41,157	0.0051	0.1964
1944 .....	531,737	9,402	0.0177	0.6815	4,687,174	23,816	0.0050	0.1956
1945 .....	263,527	10,071	0.0382	1.4707	2,981,599	31,721	0.0106	0.4081
1946 .....	428,603	15,530	0.0362	1.3303	5,917,740	45,283	0.0076	0.2793
1947 .....	478,667	5,732	0.0120	0.4191	7,054,753	47,679	0.0067	0.2365
1948 .....	1,692,585	18,133	0.0107	0.3750	7,813,449	60,606	0.0078	0.2715
1949 .....	1,696,363	14,497	0.0085	0.3074	9,263,700	81,970	0.0088	0.3185
1950 .....	494,066	14,632	0.0296	1.1263	7,860,497	93,339	0.0118	0.4490
1951 .....	695,719	18,802	0.0270	0.9950	7,266,422	77,504	0.0107	0.3942

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

2. Data partly conjectural and include some overburden and barren material.

3. Fine gold received at Royal Canadian Mint (Vancouver Assay Office).



4. Gross value less cost of supplies, fuel and electricity, treatment costs and freight.

TABLE 17. Principal Statistics Relating to Producers only in the Auriferous Quartz Mining Industry, 1951

Province	Number of producing plants or mines	Number of employees	Salaries and wages	Cost of fuel and electricity	Cost of process supplies used <sup>1</sup>	Value of freight paid on shipments of ore, slag, etc.	Smelter and refinery treatment costs <sup>2</sup>	Gross value of bullion, ore, concentrates or residues shipped from mines <sup>3</sup>	Net <sup>4</sup> value of bullion, ore, concentrates or residues shipped from mines
			\$	\$	\$	\$	\$	\$	\$
Quebec.....	21	4,592	13,444,600	1,688,613	6,368,913	253,718	691,344	26,433,685	17,431,097
Ontario.....	45	14,386	44,503,322	4,372,052	15,979,118	96,107	648,579	89,603,190	68,507,334
Manitoba.....	3	590	1,886,794	355,019	1,202,412	8,766	33,099	4,655,079	3,055,783
British Columbia.....	10	1,282	3,917,540	422,937	2,069,526	188,548	182,231	8,144,954	5,281,712
Northwest Territories.....	5	831	3,618,692	820,092	857,302	17,501	55,109	7,865,917	6,115,913
Canada, 1951.....	84	21,681	67,370,948	7,658,723	26,477,278	564,640	1,610,362	136,703,452	100,392,449
Canada, 1950.....	93	21,868	62,888,423	7,706,820	24,384,766	610,849	2,004,281	144,044,607	109,337,891
Canada, 1949.....	103	21,983	60,296,116	7,219,282	22,997,149	728,210	1,682,920	129,550,461	96,922,900
Canada, 1948.....	101	21,325	56,321,068	6,601,520	19,070,440	609,053	1,149,720	108,664,082	81,233,349

1. Explosives, etc.

2. Includes handling charges.

3. Value of bullion produced, plus value of ore, concentrates, etc., shipped.

4. Gross value less cost of fuel and electricity, process supplies, freight and treatment charges.

TABLE 18. Principal Statistics Relating to All<sup>1</sup> Gold Mines in Ontario, by Areas, 1949-1951

Camp or district	Number of producers	Ore treated <sup>2</sup>	Total gold recovered	Average ounces per ton recovered	Employees	Salaries and wages paid	Cost of fuel, electricity and process supplies
	No.	Tons	Fine ounces		No.	\$	\$
1949							
Porcupine.....	16	4,500,059	1,047,949	.23	7,044	19,499,185	9,672,375
Kirkland Lake.....	9	1,288,886	475,819	.37	2,915	7,855,537	2,977,177
Larder Lake.....	2	1,860,742	314,434	.17	1,053	2,857,876	1,448,960
Matachewan.....	2	563,295	49,526	.09	281	759,770	646,825
Sudbury.....	1	155,049	32,725	.21	218	572,418	346,873
Thunder Bay.....	8	466,525	117,957	.25	914	2,395,799	1,018,567
Rainy River and Kenora.....							
Patricia.....	10	1,032,663	280,348	.27	1,609	5,045,651	2,301,969
Total.....	48	9,867,239	2,318,758	.23	14,234	38,986,236	18,412,746
1950							
Porcupine.....	16	4,562,185	1,100,098	.24	7,063	20,714,637	10,013,774
Kirkland Lake.....	8	1,320,949	448,391	.34	2,948	8,169,677	3,210,275
Larder Lake.....	2	1,903,733	341,081	.18	1,069	3,039,920	1,653,243
Matachewan.....	2	564,616	50,048	.09	281	760,416	675,665
Sudbury.....	1	157,948	36,930	.23	249	672,983	407,284
Thunder Bay.....	6	627,771	131,413	.21	1,010	2,892,516	1,351,158
Rainy River and Kenora.....							
Patricia.....	10	1,144,500	336,793	.29	1,727	4,963,411	2,487,769
Total.....	45	10,301,902	2,444,754	.24	14,347	41,213,560	19,799,168
1951							
Porcupine.....	16	4,397,816	1,062,951	.24	7,472	22,839,455	10,352,507
Kirkland Lake.....	8	1,211,485	454,986	.38	3,150	9,657,297	3,250,365
Larder Lake.....	2	1,926,655	352,135	.18	1,041	3,306,150	1,766,519
Matachewan.....	2	566,346	41,984	.07	267	795,705	637,086
Sudbury.....	1	88,736	23,717	.27	191	573,300	376,557
Thunder Bay and Kenora.....	6	634,567	137,328	.22	767	2,493,313	1,360,678
Patricia.....	10	1,158,036	349,404	.30	1,616	5,221,876	2,741,904
Total.....	45	9,983,641	2,422,505	.24	14,504	44,887,096	20,485,616

1. Includes employees, etc., for all active properties whether producing or not.

2. Does not include low grade discarded by sorting, but includes crude ore milled and smelted.

TABLE 19. Ores Mined and Treated by Auriferous Quartz Mining Industry, 1942-1951

Year	Ore hoisted	Ore milled <sup>1</sup>	Crude ore shipped to smelters <sup>2</sup>	Low-grade sorted out	Tailings re-treated	Gold recovered as bullion	Gold in crude ore shipped	Gold in concentrates, slag, etc., shipped
			Tons				Fine ounces	
1942 .....	17,722,866	16,820,442	282,334	658,439	5,176	3,898,999	39,512	193,068
1943 .....	12,853,610	12,206,518	268,334	361,522	29,716	2,869,635	36,429	109,055
1944 .....	10,790,495	10,330,899	205,379	234,820	18,233	2,300,090	26,535	103,946
1945 .....	9,780,555	9,437,796	177,208	136,328	—	2,068,910	27,019	109,487
1946 .....	10,712,615	10,306,720	146,075	229,237	—	2,289,647	19,532	71,819
1947 .....	11,632,841	11,296,610	146,469	205,250	1,376	2,590,589	19,001	109,826
1948 .....	13,630,705	13,110,271	224,123	224,374	537	2,934,160	29,143	114,378
1949 .....	15,999,866	15,374,803	243,137	184,373	112	3,423,303	34,405	143,274
1950 .....	16,980,027	16,297,461	315,390	206,797	—	3,630,358	46,202	98,804
1951 .....	16,548,264	15,907,335	311,324	171,137	—	3,572,655	41,549	84,812

1 + 2 = Total crude ore treated.

TABLE 20. Ores Mined and Milled, Crude Bullion Recovered, and Crude Bullion and Concentrates Shipped in the Auriferous Quartz Mining Industry, 1951

	Nova Scotia	Quebec	Ontario	Manitoba	British Columbia	Northwest Territories	Canada
Number of producing mines .....	—	21	45	3	10	5	84
Ore mined .....	tons	—	4,541,340	10,211,339	915,689	498,735	16,548,264
Material discarded (sorted) .....	"	—	57,620	55,477	56,111	—	171,137
Ore milled (ground, etc.) .....	"	—	4,152,133	9,983,641	893,628	498,701	15,907,335
Tailings re-treated .....	—	—	—	—	—	—	—
Gold content of ores, slags, residues and concentrates shipped:							
To foreign smelters .....	fine ounces	—	72	—	77,637	—	77,709
To Canadian smelters .....	"	—	41,932	6,367	206	147	48,652
Bullion bars shipped:							
Gold content .....	fine ounces	17	671,221	2,414,362	126,660	145,276	3,570,160
Silver content .....	"	1	152,227	408,896	16,547	27,262	668,759
Content of bullion bars produced:							
Gold .....	fine ounces	17	672,714	2,415,795	126,661	145,276	3,572,655
Silver .....	"	1	152,117	420,143	16,547	27,262	680,298
Gold value .....	\$	626	24,744,185	88,960,626	4,631,516	5,339,667	131,485,141
Silver value .....	\$	1	142,660	396,732	15,548	24,480	636,617
Value of ores, concentrates, slags and residues sold (shipped) .....	\$	—	1,546,840	245,832	8,015	2,780,807	4,581,494
Total gross value of production .....	\$	627	26,433,685	89,603,190	4,655,079	8,144,954	136,703,452
Value of fuel, electricity and process supplies used, also freight on shipments, marketing, smelter and refinery charges .....	\$	17	9,159,474	21,230,302	1,599,296	2,880,437	36,643,949
Net value of production .....	\$	610	17,274,211	68,372,888	3,055,783	5,264,517	100,059,503

1. Not recorded.



TABLE 21. Ores, Concentrates, Slags, etc., Shipped to Smelters from Canadian Gold Mines, 1942-1951

Year	Ores		Concentrates		Slags, residues, precipitates	
	Tons	Gold content-fine ounces	Tons	Gold content-fine ounces	Tons	Gold content-fine ounces
<b>TO CANADIAN PLANTS</b>						
1942 .....	280,978	38,492	2,555	7,307	137	2,831
1943 .....	268,334	36,429	4,490	12,335	311	2,069
1944 .....	205,379	26,535	4,835	11,900	143	1,858
1945 .....	177,099	26,834	5,474	13,903	647	1,832
1946 .....	146,075	19,532	5,155	10,646	314	2,359
1947 .....	146,469	19,001	2,538	5,313	296	1,961
1948 .....	223,834	28,997	630	2,192	248	2,860
1949 .....	243,121	34,114	325	1,196	253	3,690
1950 .....	294,387	45,215	—	—	153	5,220
1951 .....	296,341	41,398	—	9	349	7,245
<b>TO FOREIGN PLANTS</b>						
1942 .....	1,356	1,020	40,428	126,931	68	55,999
1943 .....	—	—	20,615	59,949	40	34,704
1944 .....	—	—	20,755	54,233	73	35,955
1945 .....	109	185	19,596	49,193	47	44,559
1946 .....	—	—	11,969	49,164	25	9,650
1947 .....	—	—	25,765	67,929	32	34,572
1948 .....	289	6,400	24,446	64,531	36	44,795
1949 .....	16	291	25,331	69,935	29	34,048
1950 .....	51	987	20,471	53,811	15	39,773
1951 .....	34	151	14,303	37,360	29	40,126

TABLE 22. Shipments from Auriferous Quartz Mines, 1950 and 1951

	Quantity	Total gross metal content					
		Gold	Silver	Copper	Lead	Zinc	Other
	Tons	Ounces			Pounds		
<b>1950</b>							
To Canadian smelters:							
Gold ore .....	294,387	45,215	1,994	—	8,904	4,997	—
Gold concentrates .....	—	—	—	—	—	—	—
Slags, precipitates, residues .....	153	5,220	5,663	544	—	—	—
Arsenical material .....	313	—	—	—	—	—	264 <sup>1</sup>
To foreign smelters:							
Gold concentrates .....	20,471	53,811	9,468	—	—	—	—
Slags, precipitates, residues .....	15	39,773	3,956	—	—	—	—
Gold ore .....	51	987	2,544	—	—	—	—
<b>Total</b> .....	<b>315,390</b>	<b>145,006</b>	<b>23,625</b>	<b>544</b>	<b>8,904</b>	<b>4,997</b>	<b>—</b>
<b>1951</b>							
To Canadian smelters:							
Gold ore .....	296,341	41,398	72	—	169	793	—
Gold concentrates .....	—	9	1	—	—	—	—
Slags, precipitates, residues .....	349	7,245	11,481	9,871	—	—	—
To foreign smelters:							
Gold ore .....	34	151	79	—	—	—	—
Gold concentrates .....	14,303	37,360	7,250	146,112	—	—	—
Slags, precipitates, etc. ....	29	40,126	3,019	—	—	—	—
Arsenical material .....	268	72	—	—	—	—	225 <sup>1</sup>
<b>Total</b> .....	<b>311,324</b>	<b>126,361</b>	<b>21,902</b>	<b>155,983</b>	<b>169</b>	<b>793</b>	<b>—</b>

1. Tons of arsenious oxide.

**TABLE 23. Certain Data Relating to the Production of Gold by the Entire Auriferous Quartz Mining Industry, 1942-1951 (Averages)**

Year	Average ounces of gold produced per wage-earner	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	Taxes per ounce of gold produced	Total of specified costs
	Ounces	\$	\$	\$	\$	\$	\$
1942 .....	176	1.84	11.47	4.34	0.75	Information not available	18.40
1943 .....	176.7	2.12	11.47	4.24	0.69	4.89	23.41
1944 .....	159	2.43	12.81	4.60	0.81	4.15	24.80
1945 .....	140	2.45	14.08	5.09	0.74	3.74	26.10
1946 .....	122	2.63	16.77	6.05	0.59	3.08	29.12
1947 .....	132	2.62	17.28	6.56	0.52	1.93	28.91
1948 .....	151	2.27	16.82	6.35	0.57	1.47	27.48
1949 .....	176	2.05	15.03	6.52	0.68	1.73	26.01
1950 .....	186	2.08	14.83	6.55	0.69	2.08	26.23
1951 .....	193	2.11	15.60	7.21	0.59	2.19	27.70

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. The trends should not be interpreted as entirely reflecting operations of producing mines only, but rather as indices of change in the industry as a whole. For data relating to producers only, see Table 24.

**TABLE 24. Certain Data (Averages) Relating to the Total Production of Gold by Producers Only in the Auriferous Quartz Mining Industry, 1942-1951**

Year	Average ounces of gold produced per wage-earner	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	Taxes per ounce of gold produced	Total of specified costs
	Ounces	\$	\$	\$	\$	\$	\$
1942 .....	177	1.83	11.41	4.33	0.75	Information not available	18.32
1943 .....	177	2.12	11.42	4.23	0.69	4.89	23.35
1944 .....	163	2.41	12.59	4.57	0.81	4.12	24.50
1945 .....	151	2.34	13.17	4.97	0.74	3.68	24.90
1946 .....	141	2.35	14.38	5.69	0.59	2.99	26.00
1947 .....	148	2.29	15.20	6.10	0.52	1.86	25.97
1948 .....	159	2.14	16.00	6.20	0.57	1.41	26.32
1949 .....	179	2.02	14.83	6.45	0.68	1.71	25.69
1950 .....	191	2.04	14.50	6.46	0.69	2.06	25.75
1951 .....	197	2.07	15.31	7.16	0.59	2.17	27.30

**TABLE 25. Gold and Silver Content of Bullion Produced and of Ores, Concentrates, etc., Shipped, With Average Grade of Ore Shipped and Ore Milled at Auriferous Quartz Mines, and the Average Price of Gold and Silver in Canadian Funds, 1942-1951**

Year	Tonnage treated <sup>1,3</sup>	Gold content <sup>2</sup>	Silver content <sup>2</sup>	Ounces of fine gold per ton	Ounces of fine silver per ton	Average price of gold	Average price of silver
		Fine ounces				\$ per oz.	
1942 .....	17,102,776	4,131,579	2,186,369	.24	.13	38.50	0.422
1943 .....	12,474,852	3,015,119	1,399,778	.24	.11	38.50	0.452
1944 .....	10,536,278	2,430,571	906,788	.23	.09	38.50	0.430
1945 .....	9,615,004	2,205,416	1,205,147	.23	.13	38.50	0.47
1946 .....	10,452,775	2,380,998	1,025,619	.23	.10	36.75	0.836
1947 .....	11,443,079	2,719,416	845,749	.24	.07	35.00	0.72
1948 .....	13,334,931	3,077,681	1,044,912	.23	.08	35.00	0.75
1949 .....	15,617,940	3,566,577	682,569	.23	.04	36.00	0.743
1950 .....	16,297,461	3,775,364	715,991	.23	.04	38.05	0.808
1951 .....	15,907,335	3,699,016	658,719	.22	.04	36.85	0.945

1. Does not include tailings re-treated, but includes ore milled plus crude ore shipped to smelters.

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

3. Material discarded by sorting not included.



TABLE 26. Specified Costs per Ton of Ore Milled at Certain of the Principal Auriferous Quartz Mines, 1951

Name of mine	Develop- ment and explora- tion <sup>1</sup>	Mining	Milling	General <sup>2</sup>	Total before depreca- tion and taxes	Depre- ciation	Taxes	Total costs
Dollars								
<b>QUEBEC:</b>								
Anglo Rouyn Mines Ltd. ....	0.40	2.95	3.02	1.07	7.44	2.72	0.19	10.35
Barnat Mines Ltd. ....	0.54	2.57	0.97	0.93	5.01	—	0.07	5.08
Belleterre Quebec Mines Ltd. ....	1.46	5.87	1.55	0.27	9.15	0.41	0.99	10.55
Canadian Malartic Gold Mines Ltd. ....	0.477	1.292	0.657	0.521	2.947	0.140	0.016	3.103
Consolidated Beattie Mines Ltd. ....	0.350	2.435	1.000	0.489	4.274	—	0.026	4.300
Consolidated Duquesne Mining Co. Ltd. ....	3.57	1.55	3.62	1.88	10.62	—	—	10.62
Donalda Mines Ltd. ....	0.573	3.847	1.894	0.897	7.211	1.239	0.043	1.282
East Malartic Mines Ltd. ....	0.687	3.052	0.695	0.342	4.776	1.021	0.121	5.918
Lamaque Mining Co. Ltd. ....	1.29	4.32	0.85	0.10	6.56	0.27	0.44	7.27
O'Brien Gold Mines Ltd. ....	1.46	8.26	2.30	3.70	15.72	0.42	0.17	16.31
Quesabe Mines Ltd. ....	1.63	3.72	2.03	1.75	9.13	—	—	9.13
Senator-Rouyn Ltd. ....	0.266	3.408	0.987	0.142	4.803	0.170	0.035	5.008
Sigma Mines (Quebec) Ltd. ....	1.006	2.860	0.746	0.480	5.092	0.165	0.465	5.722
Stadacona Mines (1944) Ltd. ....	0.96	2.07	0.87	0.98	4.88	0.96	0.06	5.90
Sullivan Consolidated Mines Ltd. ....	1.88	4.13	1.04	0.35	7.40	0.38	0.30	8.08
<b>ONTARIO:</b>								
<i>Porcupine District</i>								
Aunor Gold Mines Ltd. ....	1.36	6.62	1.34	1.01	10.26	0.30	0.99	11.62
Bonetal Gold Mines Ltd. ....	1.70	2.17	1.37	0.86	6.10	—	—	6.10
Broulan Reef Mines Ltd. ....	0.73	3.09	1.04	1.40	6.26	—	1.05	7.31
Buffalo Ankerite Gold Mines Ltd. ....	3.15	4.52	1.40	0.72	9.79	0.21	0.05	10.05
Coniaurum Mines Ltd. ....	1.94	4.62	1.12	1.66	9.34	0.06	0.05	9.45
Hallnor Mines Ltd. ....	1.02	3.84	1.49	1.20	7.55	0.09	1.92	9.56
Hollinger Consolidated (Timmins) ....	0.609	5.276	0.921	1.722	8.528	0.247	0.405	9.180
Hollinger Consolidated (Ross) ....	0.938	2.777	1.936	0.830	6.481	0.167	0.169	6.817
McIntyre Porcupine Mines Ltd. ....	1.07	6.13	1.15	0.19	8.54	0.14	1.01	9.69
Pamour Porcupine Mines Ltd. ....	0.54	1.62	0.70	0.37	3.23	0.06	0.05	3.34
Preston East Dome Mines Ltd. ....	2.636	5.036	0.989	0.249	8.910	0.267	0.190	9.367
<i>Kirkland Lake District</i>								
Macassa Mines Ltd. ....	1.353	6.300	1.384	1.432	10.469	0.240	0.619	11.328
Peck-Hughes Gold Mines Ltd. ....	0.60	3.84	1.24	0.42	6.10	0.03	0.89	7.02
Upper Canada Mines Ltd. ....	1.22	3.89	1.24	0.64	6.99	0.88	0.69	8.56
Wright-Hargreaves Mines Ltd. ....	—	7.719	1.487	1.916	11.102	0.127	1.594	12.823
<i>Larder Lake District</i>								
Chesterville Mines Ltd. ....	0.10	1.19	0.92	0.40	2.61	—	—	2.61
Kerr Addison Gold Mines Ltd. ....	0.969	1.277	0.807	0.463	3.516	0.593	1.235	5.344
<i>Matachewan District</i>								
Matachewan Consolidated Mines Ltd. ....	0.029	1.209	0.762	0.666	2.666	0.032	—	2.698
Hollinger Consolidated (Young Davidson) ....	0.084	1.466	0.778	0.347	2.675	—	—	—
<i>Thunder Bay District</i>								
Leitch Gold Mines Ltd. ....	5.40	11.10	3.75	0.27	21.52	1.95	1.75	25.22
Little Long Lac Gold Mines Ltd. ....	0.55	5.70	2.00	1.64	9.89	0.10	0.07	10.06
MacLeod-Cockshutt Gold Mines Ltd. ....	0.714	2.200	1.240	0.767	4.921	0.415	0.126	5.462
Magnet Consolidated Mines Ltd. ....	0.09	4.72	1.82	0.92	7.55	—	—	7.55
<i>Patricia District</i>								
Cochenour Willans Gold Mines Ltd. ....	2.381	4.599	2.126	1.675	10.781	1.533	2.138	14.452
Hasaga Gold Mines Ltd. ....	0.854	2.596	1.062	0.646	5.158	0.628	—	5.786
Madsen Red Lake Gold Mines Ltd. ....	1.450	2.410	1.038	—	—	—	—	—
McKenzie Red Lake Gold Mines Ltd. ....	1.541	4.584	1.585	1.641	9.351	1.008	0.157	10.516
New Dickenson Mines Ltd. ....	0.80	4.12	2.20	2.14	9.26	2.50	0.12	2.62
Pickle Crow Gold Mines Ltd. ....	2.05	6.50	1.60	1.37	11.52	0.68	0.96	13.16
Starratt Olsen Gold Mines Ltd. ....	0.529	2.450	1.414	0.280	4.663	—	0.280	4.943
<b>BRITISH COLUMBIA:</b>								
Bralorne Mines Ltd. ....	1.66	5.77	1.19	3.65	12.27	—	0.98	13.25
Cariboo Gold Quartz Mining Co. Ltd. ....	3.95	7.40	2.69	0.40	14.44	—	—	—
Island Mountain Mines Co. Ltd. ....	5.35	8.53	3.02	0.14	17.04	—	—	—
Pioneer Gold Mines of B.C. Ltd. ....	1.44	9.58	2.53	1.70	15.26	—	0.18	15.44
Polaris-Taku Mining Co. Ltd. ....	0.08	2.76	5.26	2.65	11.25	—	0.19	11.44
<b>NORTHWEST TERRITORIES:</b>								
Consolidated Mining & Smelting Co. ....	1.82	6.92	4.72	2.74	16.20	—	—	—
Giant Yellowknife Gold Mines Ltd. ....	2.83	3.57	4.63	3.55	14.58	9.63	—	24.21
Discovery Yellowknife Mines Ltd. ....	6.31	5.89	4.15	5.55	21.90	—	—	—
Nega Mines Ltd. ....	2.013	5.716	1.961	2.904	12.593	—	—	—

1. Exclusive of outside exploration.
2. Marketing, head office, etc. (exclusive of taxes).
3. Included in mining.

TABLE 27. Milling Capacity of Operating Canadian Gold Mines, 1942-1951

Year	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	British Columbia	Northwest Territories	Canada
Tons of 2,000 pounds per 24 hours								
1942 .....	247	14,330	36,135	903	1,202	4,303	710	57,830
1943 .....	280	13,304	32,555	753	2	2,845	510	50,249
1944 .....	180	13,059	30,710	550	—	2,650	66	47,215
1945 .....	187	12,600	30,457	550	—	2,740	417	46,951
1946 .....	172	12,035	30,370	550	—	3,052	417	46,596
1947 .....	50	13,010	29,430	550	—	3,235	467	46,742
1948 .....	—	12,395	29,990	700	—	2,550	1,150	46,785
1949 .....	25	13,460	33,150	2,700	—	2,690	1,135	53,160
1950 .....	—	12,400	33,175	2,700	—	2,125	785	51,185
1951 .....	—	12,825	33,998	2,695	—	1,950	1,105	52,573

TABLE 28. Employees and Earnings in the Entire Auriferous Quartz Mining Industry, 1950 and 1951

Province	Number of employees					Earnings		
	Administrative and office		Workmen		Total	Administrative and office	Workmen	Total
	Male	Female	Male	Female				
1950						\$	\$	\$
Nova Scotia .....	—	—	1	—	1	—	782	782
Quebec .....	486	36	4,589	14	5,125	1,833,239	11,927,020	13,760,259
Ontario .....	1,227	110	12,953	57	14,347	5,208,024	36,005,536	41,213,560
Manitoba .....	74	13	586	21	694	324,398	1,657,119	1,981,517
British Columbia .....	159	17	1,264	21	1,461	676,499	3,709,727	4,386,226
Northwest Territories .....	90	14	751	8	863	495,778	2,694,992	3,190,770
Canada .....	2,036	190	20,144	121	22,491	8,537,938	55,995,176	64,533,114
1951								
Nova Scotia .....	—	—	1	—	1	—	500	500
Quebec .....	482	34	4,364	22	4,902	1,962,981	12,422,615	14,385,596
Ontario .....	1,969	120	12,384	31	14,504	7,739,928	37,147,168	44,887,096
Manitoba .....	74	14	487	16	591	340,943	1,547,651	1,888,594
British Columbia .....	138	20	1,117	16	1,291	508,821	3,436,885	3,945,706
Northwest Territories .....	114	6	717	—	837	475,672	3,156,367	3,632,039
Canada .....	2,777	194	19,070	85	22,126	11,028,345	57,711,186	68,739,531
Man-hours worked, 1951:								
Administration and office .....						7,214,356		
Workmen .....						45,010,367		
Total .....						52,224,723		

Note. In addition to the above there were 162 in 1950 and 231 in 1951 administration and office employees at head offices or any other places in Canada, except at mines or mills, their salaries and wages totalled \$778,275 in 1950 and \$1,022,089 in 1951.

TABLE 29. Workmen, by Months, in the Entire Auriferous Quartz Mining Industry, 1947-1951

Month	1947	1948	1949	1950	1951
Number					
January .....	20,656	20,867	20,237	20,388	20,181
February .....	20,850	20,559	20,058	20,295	19,726
March .....	20,959	20,387	19,993	20,163	19,547
April .....	20,768	20,211	19,651	20,050	19,120
May .....	20,816	20,203	19,993	20,163	18,568
June .....	20,937	20,530	20,100	20,564	18,479
July .....	20,947	20,637	20,173	20,294	18,387
August .....	20,267	20,312	20,292	19,981	18,452
September .....	19,611	20,031	20,490	19,878	17,987
October .....	19,778	20,276	20,667	20,192	18,596
November .....	20,458	20,464	20,764	20,297	18,837
December .....	20,672	20,315	20,361	20,025	18,482

TABLE 30. Workmen in Producing Lode Gold Mines, by Provinces, 1950 and 1951

Month	Quebec		Ontario		British Columbia		Other districts and provinces		Canada	
	1950	1951	1950	1951	1950	1951	1950	1951	1950	1951
	Number									
January .....	4,489	4,344	13,147	12,954	1,360	1,227	1,392	1,275	20,388	19,800
February .....	4,480	4,304	13,107	12,617	1,331	1,173	1,377	1,256	20,295	19,350
March .....	4,479	4,212	13,032	12,642	1,283	1,133	1,369	1,193	20,163	19,180
April .....	4,546	4,106	12,895	12,464	1,264	1,011	1,345	1,171	20,050	18,752
May .....	4,635	3,993	13,038	11,923	1,129	1,049	1,361	1,160	20,163	18,125
June .....	4,810	3,957	13,168	11,886	1,145	1,040	1,441	1,165	20,564	18,048
July .....	4,746	4,027	13,039	11,655	1,131	1,098	1,378	1,208	20,294	17,988
August .....	4,737	4,112	12,781	11,646	1,139	1,146	1,324	1,195	19,981	18,099
September .....	4,638	3,993	12,691	11,397	1,245	1,130	1,304	1,164	19,878	17,684
October .....	4,644	4,198	12,864	11,761	1,300	1,144	1,384	1,230	20,192	18,333
November .....	4,573	4,342	13,117	11,830	1,238	1,152	1,369	1,277	20,297	18,601
December .....	4,427	4,203	13,067	11,648	1,206	1,175	1,325	1,279	20,025	18,305

TABLE 31. Classification of Workmen Employed in Entire Auriferous Quartz Mining Industry, 1950 and 1951

Province	1950				1951			
	Mine			Mill	Mine			Mill
	Surface		Under-ground		Surface		Under-ground	
	Male	Female	Male	Male	Male	Female	Male	Male
	Number							
Nova Scotia .....	1	—	—	—	1	—	—	—
Quebec .....	1,171	14	3,072	346	1,073	22	2,921	370
Ontario .....	3,258	57	8,586	1,109	3,159	31	8,158	1,067
Manitoba .....	181	21	340	65	137	16	297	53
British Columbia .....	263	21	847	154	243	16	745	129
Northwest Territories .....	278	8	381	92	254	—	383	80
Canada .....	5,152	121	13,226	1,766	4,867	85	12,504	1,699

TABLE 32. Cost of Prospecting Conducted by Canadian Auriferous Quartz Mining Companies, 1950 and 1951

Province in which prospecting was conducted <sup>1</sup>	By Nova Scotia and Quebec companies <sup>2</sup>	By Ontario companies <sup>2</sup>	By Manitoba companies <sup>2</sup>	By British Columbia companies <sup>2</sup>	By Yukon and Northwest Territories companies	Total
	Dollars					
1950						
Newfoundland .....	460	—	—	—	—	460
Nova Scotia .....	1,243	—	—	—	—	1,243
New Brunswick .....	344	555	—	—	—	899
Quebec .....	1,008,057	220,833	—	—	2,500	1,231,390
Ontario .....	225,284	653,813	—	8,000	—	887,237
Manitoba .....	452	11,981	—	—	—	47,852
Saskatchewan .....	453	—	140	—	6,500	6,953
British Columbia .....	72,109	38,211	35,419	—	—	494,000
Northwest Territories .....	—	1,420	—	383,680	78,387	79,807
Yukon .....	5,528	3,300	—	—	—	8,828
Total Canada .....	1,313,930	930,113	35,559	391,680	87,387	2,758,669
1951						
Newfoundland .....	—	400	—	—	—	400
Nova Scotia .....	50	—	—	—	—	50
New Brunswick .....	33,307	1,366	—	—	—	34,673
Quebec .....	839,847	139,457	—	—	—	979,304
Ontario .....	409,274	575,664	—	500	—	985,868
Manitoba .....	2,013	—	430	—	—	30,507
Saskatchewan .....	77,453	47	28,494	—	—	77,500
British Columbia .....	74,564	600	—	217,280	—	292,424
Northwest Territories .....	739	—	—	—	12,539	13,278
Yukon .....	—	—	—	—	—	—
Total Canada .....	1,437,247	717,534	28,924	217,760	—	2,414,004

1. Prospecting includes the search for new mineral deposits on the surface, and preliminary exploration.  
2. Province in which the companies' principal operations are conducted.



TABLE 33. Drilling Completed on Auriferous Quartz Deposits, 1949-1951

	Footage drilled <sup>1</sup>		
	1949	1950	1951
Diamond drilling for exploration (testing):			
By companies with their own equipment and personnel .....	647,821	525,482	902,947
By contractors .....	1,459,401	2,261,988	1,405,308
Other drilling:			
Diamond drilling for breaking rock or ore:			
By companies with their own equipment and personnel .....	270,014	272,281	238,769
By contractors .....	545,799	580,514	378,230
Drilling by percussion and other machines <sup>2</sup> .....	34,480,521	36,580,081	32,746,954

1. Subject to revision as drilling was not reported by some new companies.

2. This is not complete as some companies do not compile these data.

Note. The value of diamonds in all forms (bits, etc.) purchased by gold mining companies in 1951 totalled \$235,904.

TABLE 34. Specified Taxes Paid by Active Canadian Auriferous Quartz Mines, 1950 and 1951, by Provinces<sup>1</sup>

Nature of tax	Nova Scotia	Quebec	Ontario	Manitoba	British Columbia	Northwest Territories	Canada
	Dollars						
1950							
Dominion Income Tax, including tax on non-operating revenue .....	—	559,243	4,299,176	94,121	163,400	—	5,115,940
Provincial taxes .....	35	309,248	1,634,649	64,773	108,557	13,165	2,130,427
Municipal taxes .....	—	256,038	293,109	13,151	27,384	23,760	613,442
Total .....	35	1,124,529	6,226,934	172,045	299,341	36,925	7,859,809
1951							
Dominion Income Tax, including tax on non-operating revenue .....	—	519,281	4,463,765	160,812	140,710	—	5,284,568
Provincial taxes .....	30	329,232	1,684,085	60,078	66,201	30,808	2,170,434
Municipal taxes .....	—	243,411	293,292	12,451	27,799	61,337	638,290
Total .....	30	1,091,924	6,441,142	233,341	234,710	92,145	8,093,292

1. Does not include complete data relating to taxes that may have been paid by dormant firms.

TABLE 35. Certain Specified Expenditures Made by Auriferous Quartz Mining Companies, 1949-1951

Province and year	Workmen's compensation	Silicosis assessment	Unemployment insurance	Aggregate cost of all supplies purchased	Aggregate cost of plant and equipment purchased	Cost of buildings, machinery and equipment, erected or installed
	Dollars					
Nova Scotia:						
1949 .....	28	—	38	1,204	11,201	11,701
1950 .....	—	—	—	—	—	—
1951 .....	—	—	—	—	—	—
Quebec:						
1949 .....	577,108	214	98,065	8,948,502	798,208	1,093,326
1950 .....	473,158	739	112,708	9,883,566	1,159,285	1,628,183
1951 .....	578,308	1,253	115,215	10,283,038	1,183,294	2,608,763

TABLE 35. Certain Specified Expenditures Made by Auriferous Quartz Mining Companies, 1949-1951 - Concluded

Province and year	Workmen's compensation	Silicosis assessment	Unemployment insurance	Aggregate cost of all supplies purchased	Aggregate cost of plant and equipment purchased	Cost of buildings, machinery and equipment, erected or installed
Dollars						
Ontario:						
1949 .....	1,270,055	615,094	273,830	22,575,013	2,500,662	5,156,771
1950 .....	1,217,855	620,405	319,773	25,488,447	2,229,828	3,793,710
1951 .....	1,144,597	684,409	348,625	26,136,870	1,798,247	3,069,373
Manitoba:						
1949 .....	64,843	5,317	13,727	2,067,864	51,838	778,553
1950 .....	52,749	3,604	15,063	1,990,148	24,868	335,312
1951 .....	48,799	—	14,325	1,804,342	28,026	134,376
Saskatchewan:						
1949 .....	—	—	—	580	—	—
1950 .....	—	—	—	—	—	—
1951 .....	—	—	—	—	—	—
British Columbia:						
1949 .....	176,096	107,338	30,404	2,071,808	558,419	536,108
1950 .....	176,912	81,040	25,611	1,829,916	716,721	375,176
1951 .....	145,224	80,140	31,391	478,964	2,177,309	206,269
Northwest Territories:						
1949 .....	24,850	1,838	5,435	1,936,745	769,896	1,293,253
1950 .....	55,575	200	11,729	3,032,541	1,068,383	1,569,871
1951 .....	61,842	200	14,155	3,240,175	1,031,743	1,742,468
Total Canada:						
1949 .....	2,112,980	729,801	421,499	37,601,516	4,690,224	8,870,052
1950 .....	1,976,249	705,988	484,884	42,224,618	5,198,885	7,702,852
1951 .....	1,978,770	766,002	523,711	41,943,389	6,218,619	7,761,269

## THE COPPER-GOLD-SILVER MINING INDUSTRY

The mining of "copper-gold-silver" ores in Canada during 1951 was confined to the provinces of Quebec, Ontario, 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 quantity of the metal obtained in the smelting and refining of the copper-nickel ores mined in the Sudbury area of Ontario; important quantities of gold and silver are also being extracted from these copper-nickel ores. The lead-zinc-copper ores of Newfoundland also contribute to the production of copper, gold and silver. General statistics relating to labor, etc., in the nickel-copper or the silver-lead-zinc industry are not included in this report.

Some firms which were formerly included in this industry have been reclassified to the silver-lead-zinc mining industry. Their production of zinc had a greater value than the value of copper.

In 1951 the gross value of crude ore concentrates, etc., shipped from the mines and mills in this industry to smelters was estimated at \$123,162,228. Fuel cost \$781,702 and 361,696,764 k.w.h. of electricity was purchased for \$1,303,906. Process supplies,

freight and treatment charges amounted to \$28,744,625. Employees numbered 6223 to whom \$21,545,660 were distributed as salaries and wages.

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

The statistics as herein shown under the copper-gold-silver mining industry refer only to mines and mills and do not include 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.

TABLE 36. Principal Statistics<sup>1</sup> of the Copper-Gold-Silver Mining Industry 1942-1951

Year	No. of active operators <sup>2</sup>	No. of operating plants or mines <sup>2</sup>	Number of employees <sup>2</sup>	Salaries and wages <sup>2</sup>	Cost of fuel and electricity <sup>2</sup>	Value of ores and concentrates shipped by mines <sup>3</sup>
				\$	\$	\$
1942 .....	26	28	5,646	11,097,412	1,338,737	33,688,642
1943 .....	20	22	5,748	11,806,827	1,426,710	43,840,679
1944 .....	23	26	5,175	10,710,071	1,402,243	38,198,039
1945 .....	38	41	4,658	9,663,612	1,175,916	38,165,269
1946 .....	42	44	4,958	10,244,487	1,152,925	37,433,982
1947 .....	31	32	5,220	13,149,093	1,361,890	52,173,584
1948 .....	35	37	6,401	17,919,526	1,706,874	85,652,206
1949 .....	30	33	7,395	21,776,150	1,630,715	74,591,660
1950 .....	55	56	7,554	23,489,366	2,204,694	83,181,924
1951 .....	80	82	6,223	21,545,660	2,085,608	92,331,995

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

2. Not including data relating to any Rossland properties leased by Consolidated Mining and Smelting Co. of Canada, Ltd.

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

TABLE 37. Shipments from Copper-Gold-Silver Mines, 1950 and 1951

—	Quantity	Value	Total metal content as determined by settlement assay <sup>1</sup>				
			Gold	Silver	Copper	Sulphur	Zinc
	Tons	\$	Fine ounces		lb.	Tons	lb.
1950							
TO CANADIAN PLANTS:							
Ores .....	594,808	10,691,575	109,376	264,605	27,671,577	—	—
Copper concentrates .....	756,131	65,503,794	341,984	3,881,842	230,131,209	—	—
Zinc concentrates .....	176,356	13,731,427	8,035	230,457	1,075,532	—	162,960,401
Iron pyrite concentrates .....	81,983	196,774	—	—	—	38,881	—
Slags, residues, bullion and gold precipitates .....	418	1,309,510	29,306	203,416	318,402	—	—
TO FOREIGN PLANTS:							
Ores .....	10,788	144,879	1,727	3,870	335,957	—	—
Copper concentrates .....	78,241	9,554,641	19,320	247,606	39,657,035	—	—
Zinc concentrates .....	134,137	20,095,185	—	—	—	—	138,736,969
Iron pyrite concentrates .....	230,631	486,037	—	—	—	111,606	—
Precipitates .....	623	139,996	—	—	687,780	—	—
Total .....	2,064,116	121,833,818	509,748	4,831,796	299,877,482	150,487	301,697,371
Value of process supplies, etc. <sup>2</sup> .....	—	38,671,894	—	—	—	—	—
Net Value .....	—	83,181,924	—	—	—	—	—
1951							
TO CANADIAN PLANTS							
Ores .....	558,976	11,265,005	103,701	241,118	26,209,129	—	—
Copper concentrates .....	730,058	66,972,614	332,682	3,260,539	202,632,950	—	2,374,988
Zinc concentrates .....	152,801	18,298,432	5,650	205,430	1,608,280	—	139,146,773
Iron pyrite concentrates .....	186,069	504,837	—	—	—	89,295	—
Slags, residues, bullion and gold precipitates .....	8,201	1,836,788	26,461	202,011	911,146	—	4,150,140
TO FOREIGN PLANTS:							
Ores .....	23,368	330,333	4,273	14,545	631,343	—	—
Copper concentrates .....	54,012	8,199,902	7,966	172,331	25,975,988	—	—
Zinc concentrates .....	77,639	15,363,901	—	—	—	—	79,825,445
Iron pyrite concentrates .....	148,931	390,416	—	—	—	72,194	—
Precipitates .....	—	—	—	—	—	—	—
Total .....	1,940,055	123,162,228	480,733	4,095,974	257,968,836	161,489	225,407,340
Value of process supplies, etc. <sup>2</sup> .....	—	30,830,233	—	—	—	—	—
Net value .....	—	92,331,995	—	—	—	—	—

1. In addition, cadmium, tellurium and selenium are recovered from these ores.

2. Includes freight on ore shipments, smelter charges and purchased electricity.



TABLE 38. Ores Mined, Milled, and Concentrates Produced by the Copper-Gold-Silver Mining Industry, 1942-1951

Year	Ore mined	Ore milled	Copper concentrates produced <sup>1</sup>	Zinc concentrates produced	Iron pyrite concentrates produced	Net value of all estimated mine and mill shipments <sup>2,3</sup>
			Tons			\$
1942 .....	6,575,626	7,816,813	858,580	264,739	219,874	40,730,834
1943 .....	8,251,579	7,482,831	914,360	315,670	292,007	50,774,104
1944 .....	7,395,608	6,873,542	870,726	276,737	257,423	44,770,863
1945 .....	5,914,580	5,441,121	730,724	229,980	228,618	44,258,780
1946 .....	5,009,490	4,606,503	661,554	219,985	201,873	42,609,415
1947 .....	5,462,233	5,140,376	662,088	185,630	178,263	58,198,612
1948 .....	6,496,499	6,061,132	724,066	232,131	184,069	91,403,196
1949 .....	8,245,402	7,662,382	839,609	250,595	250,476	83,721,820
1950 .....	8,758,607	8,159,756	830,438	313,161	322,117	94,727,261
1951 .....	7,380,966	6,799,064	792,830	231,674	375,969	102,675,422

1. Exclusive of copper precipitate, 1943-1950.

2. Gross value reported by operators less only freight and treatment costs deducted by Dominion Bureau of Statistics.

3. Includes the value of any cyanide precipitate shipped from mills to smelters.

TABLE 39. Ore Reserves of Specified Copper-Gold-Silver Mining Companies<sup>1</sup>

—	Tons	Copper	Zinc	Gold	Silver
		Per cent	Per cent	Ounces per ton	Ounces per ton
<b>Noranda Mines Ltd., January 1, 1952:</b>					
Sulphide ore over 4 per cent copper.....	3,860,622	7.06	—	0.159	—
Sulphide ore under 4 per cent copper.....	11,765,518	0.65	—	0.195	—
Silicious fluxing ore .....	955,759	0.08	—	0.121	—
Chadbourne orebody .....	1,550,000	—	—	0.126	—
No. 5 Zone Horne <sup>1</sup> .....	320,000	—	—	0.228	—
No. 5 Zone Horne <sup>2</sup> .....	1,500,000	0.7	—	0.120	—
Capacity of mill: 24 hours .....	3,500				
<b>Waite Amulet Mines Ltd., December 31, 1951:</b>					
East Waite shaft .....	1,028,000	4.1	3.15	0.048	0.88
"C" shaft orebodies .....	9,800	2.3	1.1	0.01	1.0
Amulet Dufault:					
Lower "A" orebody .....	695,887	5.7	4.05	0.045	1.5
Upper "A" orebody .....	25,000	1.05	5.6	0.07	1.6
Ore below 1000-ft level .....	200,000	2.75	0.6	0.022	0.52
Capacity of mill: 24 hours .....	1,800				
<b>Hudson Bay Mining &amp; Smelting Co. Ltd., January 1, 1952:</b>					
Ore reserves .....	18,102,439	3.15	4.1	0.078	1.07
Capacity of mill: 24 hours .....	6,200				
<b>Granby Consolidated Mining, Smelting &amp; Power Co. Ltd., Dec. 31, 1950:</b>					
Ore reserves .....	3,100,000	0.97	—	—	—
Capacity of mill: 24 hours .....	5,000				
<b>East Sullivan Mines Ltd., 1951:</b>					
Ore reserves .....	4,375,252	1.63	1.27	0.017	0.46
Capacity of mill: 24 hours .....	2,500				
<b>Quemont Mining Corp. Ltd., 1951:</b>					
Ore reserves .....	9,438,000	1.44	2.65	0.159	0.98
Capacity of mill: 24 hours .....	2,000				
<b>Cuprus Mines Ltd., January, 1952:</b>					
Ore reserves .....	129,045	3.35	6.5	0.04	0.89
Capacity of mill: 24 hours .....	300				

1. Subject to revision.



TABLE 40. Employees and their Earnings in the Copper-Gold-Silver Mining Industry, 1950 and 1951

Province	Number of employees					Earnings		
	Administrative and office		Workmen		Total	Administrative and office	Workmen	Total
	Male	Female	Male	Female				
1950						\$	\$	\$
Quebec.....	276	34	2,975	18	3,303	1,109,404	8,261,794	9,371,198
Ontario.....	329	91	2,119	18	2,559	1,588,646	7,591,373	9,180,019
Manitoba.....								
Saskatchewan.....								
British Columbia.....	149	26	1,481	36	1,692	762,407	4,175,742	4,938,149
Canada.....	754	151	6,575	74	7,554	3,460,457	20,028,909	23,489,366
1951								
Newfoundland.....	1	—	7	—	8	3,500	14,045	17,545
Quebec.....	254	36	2,530	10	2,830	1,082,799	7,249,770	8,332,569
Ontario.....	354	95	1,966	18	2,433	1,921,643	8,115,500	9,947,163
Manitoba.....								
Saskatchewan.....								
British Columbia.....	80	16	822	14	932	392,900	2,702,557	3,095,457
Northwest Territories.....	3	—	16	1	20	7,111	55,835	62,946
Canada.....	692	147	5,341	43	6,223	3,407,953	18,137,707	21,545,660

Man-bours worked, 1951:

Administrative and office .....	2,470,594
Workmen .....	12,678,794

**Total..... 15,149,388**

Note. In addition to the above there were 52 in 1950 and 156 in 1951, administrative and office employees at head offices in other places in Canada than at mines or mills; their salaries and wages totalled \$268,523 in 1950 and \$665,397 in 1951.

TABLE 41. Classification of Workmen Employed in the Copper-Gold-Silver Mining Industry, by Provinces, 1949-1951

	Surface		Underground	Mill		Total	
	Male	Female	Male	Male	Female	Male	Female
Number							
1951							
Quebec and Newfoundland.....	684	9	1,540	313	1	2,537	10
Ontario.....	11	—	13	5	—	29	—
Manitoba.....	304	12	369	99	—	772	12
Saskatchewan.....	549	6	503	113	—	1,165	6
British Columbia and Northwest Territories.....	173	15	450	215	—	838	15
<b>Canada 1951.....</b>	<b>1,721</b>	<b>42</b>	<b>2,875</b>	<b>745</b>	<b>1</b>	<b>5,341</b>	<b>43</b>
<b>Canada, 1950.....</b>	<b>1,913</b>	<b>59</b>	<b>3,674</b>	<b>988</b>	<b>15</b>	<b>6,575</b>	<b>74</b>
<b>Canada, 1949.....</b>	<b>1,963</b>	<b>69</b>	<b>3,522</b>	<b>961</b>	<b>19</b>	<b>6,446</b>	<b>88</b>

TABLE 42. Specified Expenditures by the Copper-Gold-Silver Mining Industry, 1949-1951

	1949	1950	1951
Dollars			
Workmen's compensation.....	893,898	841,003	780,576
Silicosis assessment.....	103,097	101,786	86,680
Unemployment insurance.....	154,766	193,554	194,210
Aggregate cost of all supplies purchased.....	16,445,853	17,074,795	19,015,080
Aggregate cost of plant and equipment purchased.....	7,179,284	4,900,575	4,685,169
Cost of buildings, machinery and equipment erected or installed during year.....	10,507,554	6,872,991	5,935,960

TABLE 43. Taxes Paid by the Copper-Gold-Silver Mining Industry, 1949-1951

	1949	1950	1951
	Dollars		
Dominion income tax, including tax on non-operating revenue .....	8,183,172	8,842,345	9,951,479
Provincial tax .....	3,419,742	3,690,872	4,730,728
Municipal tax .....	716,141	1,204,810	875,195
<b>Grand total taxes paid .....</b>	<b>12,319,055</b>	<b>13,738,027</b>	<b>15,557,402</b>

TABLE 44. Cost of Prospecting Conducted by the Copper-Gold-Silver Mining Industry, by Provinces, 1950 and 1951

Conducted in -	1950	1951	Conducted in -	1950	1951
	Dollars			Dollars	
Newfoundland .....	—	20,304	Saskatchewan .....	19,303	23,505
Nova Scotia .....	—	3,011	British Columbia .....	84,638	171,557
New Brunswick .....	—	54,303	Yukon .....	7,479	3,971
Quebec .....	469,434	670,597	Northwest Territories .....	828	207
Ontario .....	134,308	194,597			
Manitoba .....	85,398	52,494	<b>Total .....</b>	<b>801,388</b>	<b>1,194,546</b>

TABLE 45. Drilling Completed on Copper-Gold-Silver Deposits, 1949-1951

	Footage drilled		
	1949	1950	1951
Diamond drilling for exploration (testing only):			
By mining companies with their own personnel and equipment .....	119,627	170,307	143,477
By diamond drilling contractors .....	420,012	480,253	809,507
Other diamond drilling:			
Blast hole diamond drilling:			
By mining companies with their own personnel and equipment .....	1,589,817	1,922,830	1,465,673
By diamond drilling contractors .....	61,419	88,001	91,023
Drilling by percussion or other machines <sup>1</sup> .....	8,868,074	9,095,279	8,150,836

1. Not complete as these data are not recorded by some operators.

TABLE 46. Copper Production (Recoverable) According to Nature of Ore, and by Provinces, 1949-1951

Province and year	From copper-gold-silver ores	From nickel-copper ores	From gold and other ores	Total
	Pounds			
1949:				
Newfoundland .....	—	—	7,233,952	7,233,952
Quebec .....	135,644,936	—	—	135,644,936
Ontario .....	—	224,726,682	1,358,741	226,085,423
Manitoba .....	33,920,148	—	—	33,920,148
Saskatchewan .....	69,919,293	—	—	69,919,293
British Columbia .....	53,195,933	—	913,947	54,109,880
<b>Total Canada .....</b>	<b>282,680,310</b>	<b>224,726,682</b>	<b>9,506,640</b>	<b>526,913,632</b>
1950:				
Newfoundland .....	—	—	6,442,825	6,442,825
Quebec .....	145,253,590	—	527,781	145,781,371
Ontario .....	—	234,394,012	26,532	234,420,544
Manitoba .....	41,634,697	—	—	41,634,697
Saskatchewan .....	57,963,500	—	—	57,963,500
British Columbia .....	40,289,361	—	1,885,998	42,175,359
<b>Total Canada .....</b>	<b>285,141,148</b>	<b>234,394,012</b>	<b>8,883,136</b>	<b>528,418,296</b>
1951:				
Newfoundland .....	—	—	5,798,674	5,798,674
Quebec .....	136,127,919	—	1,603,987	137,731,906
Ontario .....	—	257,279,486	337,320	257,616,806
Manitoba .....	31,677,863	—	—	31,677,863
Saskatchewan .....	63,250,444	—	—	63,250,444
British Columbia .....	26,573,735	—	17,290,227	43,863,962
Northwest Territories .....	—	—	1,934	1,934
<b>Total Canada .....</b>	<b>257,629,961</b>	<b>257,279,486</b>	<b>25,032,142</b>	<b>539,941,589</b>

TABLE 47. Production of Refined Copper<sup>1</sup>, 1942-1951

Year	Short tons	Year	Short tons
1942 .....	268,447	1947 .....	202,427
1943 .....	251,495	1948 .....	221,275
1944 .....	256,244	1949 .....	226,083
1945 .....	237,457	1950 .....	238,204
1946 .....	204,016	1951 .....	245,466

1. In all forms and from all sources, including scrap.

TABLE 48. Silver Production According to Nature of Ores, by Provinces, 1951

Province	Crude placer gold	Auriferous quartz ores	Copper-gold-silver ores	Nickel-copper ores	Silver-lead-zinc ores	Silver-cobalt and other ores	Total
Ounces							
Newfoundland .....	—	—	—	—	534,519	—	534,519
Nova Scotia .....	—	1	—	—	—	—	1
Quebec .....	1	163,910	1,961,940	—	2,028,439	—	4,154,290
Ontario .....	—	430,033	1,868	1,128,205	—	2,959,988	4,520,094
Manitoba .....	—	16,937	596,204	—	—	—	613,141
Saskatchewan .....	—	—	1,454,341	—	—	—	1,454,341
Alberta .....	9	—	—	—	—	—	9
British Columbia .....	3,030	37,607	239,530	—	8,062,247	—	8,342,414
Northwest Territories .....	—	64,228	—	—	—	—	64,228
Yukon .....	16,721	—	—	—	3,426,067	—	3,442,788
Canada .....	19,761	712,716	4,253,083	1,128,205	14,051,272	2,959,988	23,125,825

TABLE 49. Selenium and Tellurium Recovered from Canadian Ores, 1942-1951

Year	From copper-gold-silver ores		From nickel-copper ores		Total	
	Selenium	Tellurium	Selenium	Tellurium	Selenium	Tellurium
Pounds						
1942 .....	419,369	1,584	76,000	9,500	495,369	11,086
1943 .....	292,013	—	82,000	8,600	374,013	8,600
1944 .....	233,592	761	65,000	9,900	298,592	10,661
1945 .....	211,187	484	168,000	—	379,187	484
1946 .....	251,261	1,648	270,606	14,200	521,867	15,848
1947 .....	354,684	3,025	146,406	6,169	501,090	9,194
1948 .....	281,905	2,686	108,989	8,739	390,894	11,425
1949 .....	231,383	2,966	86,842	8,726	318,225	11,692
1950 .....	198,264	4,065	63,709	6,010	261,973	10,075
1951 .....	300,194	2,612	82,409	6,301	382,603	8,913



TABLE 50. Zinc Production (Recoverable) According to Nature of Ore, and by Provinces, 1949-1951

Year and province	Recovered from copper-gold-silver ores	Recovered from silver-lead-zinc and other ores	Total
Pounds			
1949:			
Newfoundland .....	—	63,818,908	63,818,908
Quebec .....	74,332,795	50,988,503	125,321,298
Manitoba .....	34,081,713	—	34,081,713
Saskatchewan .....	64,266,312	—	64,266,312
British Columbia .....	11,188,239	277,000,381	288,188,620
Yukon .....	—	847,246	847,246
Canada .....	183,869,059	392,655,038	576,524,097
1950:			
Newfoundland .....	—	61,077,614	61,077,614
Quebec .....	117,275,049	54,363,269	171,638,318
Manitoba .....	42,905,613	—	42,905,613
Saskatchewan .....	54,981,653	—	54,981,653
British Columbia .....	18,473,209	271,871,018	290,344,227
Yukon .....	—	5,507,173	5,507,173
Canada .....	233,635,524	392,819,074	626,454,598
1951:			
Newfoundland .....	—	56,938,689	56,938,689
Quebec .....	67,403,205	105,322,618	172,725,823
Manitoba .....	30,221,016	—	30,221,016
Saskatchewan .....	79,148,484	—	79,148,484
British Columbia .....	—	337,511,324	337,511,324
Yukon .....	—	5,678,999	5,678,999
Canada .....	176,772,705	505,451,630	682,224,335

TABLE 51. Refined Zinc Produced, from all Sources, 1942-1951

Year	Short tons	Year	Short tons
1942 .....	215,795	1947 .....	178,264
1943 .....	206,510	1948 .....	196,575
1944 .....	168,518	1949 .....	206,045
1945 .....	182,267	1950 .....	204,367
1946 .....	185,683	1951 .....	218,578

TABLE 52. Cadmium Recovered from Canadian Ores, 1942-1951

Year	From copper- gold-silver ores	From silver- lead-zinc ores	Total	Year	From copper- gold-silver ores	From silver- lead-zinc ores	Total
Pounds				Pounds			
1942 .....	176,550	972,413	1,148,963	1947 .....	172,896	545,638	718,534
1943 .....	187,938	598,673	786,611	1948 .....	148,864	617,226	766,090
1944 .....	140,560	386,410	526,970	1949 .....	181,092	665,449	846,541
1945 .....	135,632	510,432	646,064	1950 .....	141,456	706,950	848,406
1946 .....	166,333	636,315	802,648	1951 .....	147,168	1,179,752	1,326,220

TABLE 53. Average Annual Metal Prices, in Canadian Dollars, 1942-1951

Year	Gold	Silver	Copper	Lead	Zinc
	Per troy ounce	Per troy ounce	Per pound	Per pound	Per pound
Dollars					
1942 .....	38.50	0.4216	0.101	0.034	0.034
1943 .....	38.50	0.4525	0.117	0.037	0.040
1944 .....	38.50	0.43	0.12	0.045	0.043
1945 .....	38.50	0.47	0.1255	0.05	0.0644
1946 .....	36.75	0.836	0.128	0.067	0.078
1947 .....	35.00	0.72	0.2039	0.1367	0.1123
1948 .....	35.00	0.75	0.2235	0.1804	0.1393
1949 .....	36.00	0.7425	0.1997	0.158	0.1325
1950 .....	38.05	0.8082	0.2342	0.1445	0.1565
1951 .....	36.85	0.9455	0.277	0.184	0.199

## TRANSACTIONS IN GOLD BULLION AT THE ROYAL CANADIAN MINT

(From the Annual Report of the Royal Canadian Mint)

Five thousand seven hundred and seventy six deposits of gold bullion were received at the Mint during the year from Canadian Mining Companies, the Assay Office, Royal Canadian Mint, Vancouver, B.C. and sundry persons. The gross weight of the deposits amounted to 5,246,759 ounces containing by assay 4,169,480 ounces fine gold and 651,004 ounces fine silver. (Note: The variation between these figures and those set out in the table of origin below is due to shipments from the Assay Office, Vancouver, being received at the Royal Canadian Mint, Ottawa, the month following deposit and payment at Vancouver). The receipts show a decrease as compared with the year 1950 of 147 in the number

of deposits, gross weight 239,198 ounces, gold content 253,488 ounces and fine silver 224 ounces.

The net value paid by cheque to depositors was \$142,075,349.02. In addition the amount of fine gold issued to depositors was 121,836.848 ounces.

Postage collected for the Postmaster General on deposits shipped by mail, postage collect, amounted to \$39,133.70.

Details of the origin of the bullion deposited at Vancouver and Ottawa during the year 1951 are shown in the following table:

From Canadian mines and refineries	Gross weight	Fine gold	Fine silver
		Ounces	
Ontario .....	3,018,118.044	2,443,243.299	333,209.83
Quebec .....	1,393,507.375	1,100,148.791	191,785.47
British Columbia .....	229,087.285	182,051.951	29,419.40
Manitoba .....	176,318.350	142,157.662	16,351.40
Yukon Territory .....	97,455.820	77,503.840	16,720.26
Nova Scotia .....	29.400	17.418	1.15
Northwest Territories .....	302,937.975	209,115.970	60,941.64
Alberta .....	127.480	96.471	8.86
<b>Total from Canadian mines and refineries .....</b>	<b>5,217,581.729</b>	<b>4,154,335.402</b>	<b>648,438.01</b>
From jewellery and scrap .....	36,350.403	19,323.100	3,676.22
<b>Grand total .....</b>	<b>5,253,932.132</b>	<b>4,173,658.502</b>	<b>652,114.23</b>

The following table shows the disposition of the fine gold produced in various forms (trade bars, granulated gold, sweep, medals, etc.):

	Ounces fine
9,613 Trade Bars transferred to Exchange Fund Account of Minister of Finance and held in safe-keeping by Bank of Canada ....	3,849,507.749
Depositors — granulated and bars .....	122,220.733
Sales to manufacturers — granulated .....	191,080.125
Proof Plate for assay purposes .....	2.000
Medals, etc .....	12.472
Sweep .....	4,662.795
	<b>4,167,485.874</b>

This total shows a decrease of 180,476.024 ounces fine as compared with the year 1950.

Summary of Transactions in GOLD BULLION of the Ottawa Branch of the Royal Mint from its opening on January 2, 1908, to its disestablishment on November 30, 1931, and of the Royal Canadian Mint from December 1, 1931 to December 31, 1951.

Year	Gold received		Gold issued		
	Gross weight	Statutory value gold only	Coin	Bullion	Statutory value coin and bullion
	Ounces	\$	\$	Ounces fine	\$
1908 to 1941 .....	83,392,336.615	1,392,148,535.51	7,923,908.73	66,875,857.747	1,390,370,566.02
1942 .....	5,761,045.973	95,338,135.90	—	4,611,892.227	95,336,270.79
1943 .....	4,456,437.559	74,769,168.35	—	3,645,739.964	75,364,131.92
1944 .....	3,537,734.636	59,163,794.79	—	2,829,755.000	58,496,226.17
1945 .....	3,102,991.020	51,750,218.87	—	2,499,163.674	51,662,297.32
1946 .....	3,271,246.445	54,826,765.59	—	2,665,964.763	55,110,381.81
1947 .....	3,559,496.703	59,296,515.31	—	2,859,084.218	59,102,514.60
1948 .....	4,252,389.454	70,325,402.34	—	3,405,073.335	70,389,111.41
1949 .....	4,941,749.248	81,149,717.63	—	3,865,296.377	79,902,766.08
1950 .....	5,485,956.751	91,430,862.97	—	4,347,961.898	89,880,347.18
1951 .....	5,246,758.942	86,190,788.36	—	4,167,485.874	86,149,576.49
<b>Total .....</b>	<b>127,008,143.346</b>	<b>2,116,389,905.62</b>	<b>7,923,908.73</b>	<b>101,773,275.077</b>	<b>2,111,764,189.69</b>

**The Mint Custom Refining and Storing Regulations**

P.C. 5774

**AT THE GOVERNMENT HOUSE AT OTTAWA**

Friday, the 26th day of October, 1951

Present:

His Excellency the Governor General in Council

His Excellency the Governor General in Council, on the recommendation of the Minister of Finance, is pleased to make the annexed Regulations prescribing the circumstances under which and the conditions upon which gold will be accepted at the Royal Canadian Mint for custom refining and storing, and the said Regulations are hereby made and established, accordingly.

N. A. ROBERTSON,

*Clerk of the Privy Council.*

**Regulations Prescribing the Circumstances Under Which and the Conditions Upon Which Gold Will be Accepted at the Royal Canadian Mint for Custom Refining and Storing**

1. These Regulations may be cited as the Mint Custom Refining and Storing Regulations.
2. In these Regulations,
  - (a) "designated gold" means gold produced from the mine of a producer in the year 1951, on or after the elected date;
  - (b) "elected date" means, with respect to a producer, the first day of October, November or December, in the year 1951, as the producer designates, with the approval of the Minister, in making his election in Form A;
  - (c) "Gold Bullion Regulations" means the Regulations for the Receipt of Gold Bullion at the Royal Canadian Mint, Ottawa, established by Order in Council P.C. 461 of March 7, 1934;
  - (d) "Minister" means the Minister of Finance;
  - (e) "Mint" means the Royal Canadian Mint;
  - (f) "producer" means a person or corporation engaged in producing gold from a mine who has on or before the first day of December, 1951, made an election by instrument in Form A, delivered to the Minister; and
  - (g) "processor" means a person or corporation engaged in the business of processing gold in Canada who makes application and gives an undertaking in Form B, and whose application has been accepted by the Minister and who has not subsequently been disqualified under section eight.
3. (1) Upon application by a producer in Form C the Minister may accept designated gold at the Mint for assaying, refining and storing on behalf of the producer.
  - (2) Where a producer, in accordance with a licence issued under the Gold Export Act,
    - (a) ships designated gold from Canada to be smelted or refined and subsequently sells the refined gold outside Canada, or
    - (b) sells designated gold to a smelter or refiner outside Canada,at a price that, in the opinion of the Minister does not exceed the mint price, the Minister may, upon being satisfied that the gold has been so sold, sell to the producer an amount of gold equivalent to the amount so sold and, subject to section four, store it at the Mint for the producer.



4. (1) Gold accepted at the Mint for assaying, refining or storing under these Regulations is so accepted subject to the condition that it will be released in the form of fine gold (.995 fine or better), only upon application in accordance with these Regulations made by or on behalf of the producer,

(a) for sale and delivery to a processor in granulated form, in an amount that, in the opinion of the Minister, does not exceed the normal requirements of the processor for the ensuing thirty days, and if, in the opinion of the Minister, it will be used for *bona fide* industrial purposes in Canada;

(b) for delivery to a processor to be processed and exported on behalf of the producer, in accordance with a licence issued under the Gold Export Act, in the form of gold of 22 karat or lower fineness, or

(c) for sale to His Majesty at the Mint at the official price for the purchase of gold by His Majesty at the Mint for the week in which the sale is made,

and for no other purpose.

(2) Where gold is released from the Mint to a producer, pursuant to these Regulations, it will be delivered, at the Mint Counter at Ottawa, to a consignee designated by the producer, or to a carrier or other agent acting on behalf of the consignee.

5. (1) An application by a producer for sale and delivery of gold in accordance with paragraph (a) of section four shall be in Form D, and shall be accompanied by an offer to purchase gold in Form E.

(2) An application by a producer for delivery of gold in accordance with paragraph (b) of section four shall be in Form F and shall be accompanied by a copy of the offer to purchase the gold and the original or a photostatic copy of the import licence issued by the appropriate authority in the country of destination in respect of the proposed transaction, if such a licence is required.

6. The following Mint service charges are payable by a producer:

(a) where gold is melted, assayed or refined for the producer at the Mint, an amount in respect of the melting, assaying or refining calculated at the rates then prescribed therefor by the Gold Bullion Regulations in respect of deposits of gold at the Mint, payable when billed;

(b) one cent for every thirty days or fraction thereof (including the day on which the gold is received at the Mint but excluding the day on which it is shipped from the Mint) for each ounce of gold stored for the producer at the Mint, payable at the time of application for release of the gold or when billed, whichever is the earlier;

(c) ten cents for each ounce of gold packed for shipment at the Mint on the direction of the producer, payable at the time of application for release of the gold; and

(d) a handling charge of twenty cents for each ounce of gold sold to His Majesty, payable at the time of sale.

7. The silver content of the gold bullion delivered to the Mint by a producer under these Regulations may be purchased by His Majesty at the official price for the purchase of silver by His Majesty at the Mint for the week in which it is so purchased.

8. (1) Where a person or corporation engaged in the business of processing gold in Canada makes application and gives an undertaking in Form B, the Minister may accept the application if he is satisfied that the applicant is engaged in a *bona fide* enterprise for the processing of gold and will carry out the undertaking in good faith.

(2) Where the Minister has reason to believe that a processor has failed to carry out any part of the undertaking given by him in Form B, or that gold sold to a processor has been dealt with in a manner contrary to the undertaking, he may, by notice in writing delivered to the processor, disqualify the processor.

9. The Minister may, where he considers it necessary or advisable for the purpose of administering these Regulations, amend the forms and prescribe additional forms.



## Directory of Firms in the Gold Mining Industry, 1951

Name	Head or executive office address	Location
(a) Alluvial Gold Mining Industry		
<b>British Columbia:</b>		
Anderson, Adolf	Likely	Quesnel
Antler Mountain Gold Ltd. (N.P.L.)	Barkerville	Cariboo
Baker, George S.	Keithley Creek	Quesnel
Bride, Maurice	Atlin	Atlin
Bridge River Placers	Lillooet	Bridge River
Brown, Alfred F.	Stanley	Cariboo
Burrard Placers Ltd. (N.P.L.)	555 Burrard St., Vancouver 1.	Quesnel
Ennerdale Placers	Van Winkle P.O.	Cariboo
Enterprise Placers	Atlin	Atlin
Falconer, D.R.	Spruce Creek, Atlin	Atlin
Fosbery, P.H.V.	Box 81, Lumby	Vernon
Ketch Placers	Wells	Cariboo
Harvey Creek Mines Ltd. (N.P.L.)	555 Burrard St., Vancouver 1.	Quesnel
Holland, John	Wells	Cariboo
Holm & Petersen	Barkerville	Cariboo
Hougen, Dr. O.R.	601, Birks Bldg., Vancouver	Cariboo
Lawless Creek Mining Co. Ltd.	Likely	Quesnel
Loper, George H.	Germanen Landing	Omineca
Lowhee Gulch Placers	P.O. Box 6, Barkerville	Cariboo
Lyne, C.J.	Williams Lake	Quesnel
Moses, Wm.	Coalmont	Similkameen
Noland Mines Ltd.	525 Seymour St., Vancouver	Atlin
Noland, J.W.	Atlin	Atlin
Piccolo Bros.	Atlin	Atlin
Russell and Burke	Seat Creek	Omineca
Sullivan, L.P.	300 Cranbrook St., Cranbrook	Fort Steele
Swanson & Watt	Atlin	Atlin
Zenda Gold Mining (Canada) Ltd.	P.O. Box 1340, Quesnel	Cariboo
<b>Yukon:</b>		
Ballarat Mines Ltd.	Dawson	Ballarat Creek
Boutillier, D.F. & H.C.	Dawson	Bonanza Creek
Boutillier, H. & H.	Box 437, Dawson	Bonanza Creek
Bratsberg, B.	1682 MacGowan Ave., N. Vancouver	Dawson
Bremner, John	Dawson	Last Chance Creek
Cariboo Creek Placers	Dawson	Cariboo Creek
Clear Creek Placers Ltd.	Dawson	Clear Creek
Coulombe, A. & A.	Dawson	Ballarat Creek
Moose Creek Mining	Dawson City	Dawson
Feichtinger, J.	Glacier Creek	Dawson
Gould, J.A. & R.S.	P.O. Box 328, Dawson	Dawson
Kluane Dredging Co. Ltd.	Box 762, Whitehorse	Burwash Creek
Pamuchina, P.	Bonanza Creek	Bonanza Creek
Pontaletta, P.	Dawson	Dawson
Strugar, J.	Dawson	Dawson
Yukon Consolidated Gold Corporation	1919, Marine Bldg., Vancouver, B.C.	Dawson
Yukon Exploration Ltd.	535 Homer St., Vancouver, B.C.	Dawson
Yukon Gold Placers Ltd.	Dawson	Henderson Creek
<b>Quebec:</b>		
Winget, C.M., & Vernet, E.	75 Main St., Lennoxville	Ditton River
(b) Auriferous Quartz Mining Industry		
<b>Nova Scotia:</b>		
K.V. Mines	Liverpool	Liverpool
Smith, A.J.	East Chezzetcook	Lake Catcha
<b>Quebec:</b>		
Abitibi Metals Mines Ltd.	1197 Val d'Or, Quebec	Pascalis
Anglo-Rouyn Mines Ltd.	44 King St. W., Toronto, Ontario	Temiscamingue, Quebec
Aumaque Gold Mines Ltd.	307-100 Adelaide St. W., Toronto, Ontario	Bourlamaque Twp.
Barnat Mines Ltd.	56 Sparks St., Ottawa, Ontario	Malartic, Quebec
Bargold Mines Ltd.	100 Adelaide St. W., Toronto, Ontario	Barraute
Barymin Company Ltd.	67 Yonge St., Toronto, Ontario	Waswanipi Lake
Beacon Mining Co., Ltd.	Bourlamaque, Quebec	Bourlamaque
Belle-Chibougamau Mines, Ltd.	50 King St. W., Toronto, Ontario	Chibougamau
Bagmac Mines Ltd.	Oak Ridges, Ontario	Rouyn
Bellevue Quebec Mines, Ltd.	25 King St. W., Toronto 1, Ontario	Bellevue
Bevcourt Gold Mines, Ltd.	380 St. James St. W., Montreal, Quebec	Bourlamaque
Canadian Malartic Gold Mines Ltd.	25 King St. W., Toronto 1, Ontario	Malartic
Centremaque Gold Mines Ltd.	637 Craig St. W., Montreal	Bourlamaque Twp.
Cheskirk Mines Limited	100 Adelaide St. W., Toronto, Ontario	Rouyn, Quebec
Chibougamau Explorers Ltd.	431 St. James St. W., Montreal, Quebec	Dauversiere Twp.
Chimo Gold Mines Ltd.	24 King St. W., Toronto, Ontario	Vauquelin
Consolidated Astoria Mines Ltd.	62 Richmond St. W., Toronto, Ontario	Rouyn
Consolidated Beattie Mines Ltd.	Duparquet, Quebec	Duparquet
Consolidated Central Cadillac Mines Ltd.	307 Place d'Armes, Montreal	Cadillac
Consolidated Duquesne Mining Co. Ltd.	Box 970, Noranda, Quebec	Dester Twp.
D'Aragon Mines Ltd.	11 King St. W., Toronto, Ontario	Bourlamaque Twp.
Debor Chibougamau Mines Ltd.	57 James St. W., Montreal	Chibougamau
Dome Exploration Company (Quebec) Ltd.	Bourlamaque, Quebec	Bourlamaque
Dominion Gulf Company	P.O. Drawer 2038, Pittsburgh 30, Pa., U.S.A.	Beauchastel Twp.
Donalda Mines Ltd.	625 Burnside St., Montreal, Quebec	Temiskaming, Quebec

## Directory of Firms in the Gold Mining Industry, 1951 - Continued

Name	Head or executive office address	Location
(b) Auriferous Quartz Mining Industry - Continued		
<b>Quebec:- Concluded</b>		
Dupresnoy Mines Ltd.	Duparquet, Quebec	Dufresnoy Twp.
East Malartic Mines Ltd.	355 St. James St. W., Montreal, Quebec	Fourniere Twp.
Elder Mines, Ltd.	86 Bloor St. W., Toronto, Ontario	Noranda Twp.
Eldona Gold Mines Ltd.	62 Richmond St. W., Toronto, Ontario	Rouyn
Payolle-Antoine	175, rue Noranda Ouest, Rouyn, Quebec	Dassarat
Flobec Gold Mines Ltd.	372 Bay St., Toronto, Ontario	Guliet Twp.
Flomic Chibougamau Mines Ltd.	427 St. James St. W., Montreal	Abitibi
Fortress Mining & Oil Ltd.	430 King St. W., Toronto, Ontario	Dufresnoy Twp.
Gale-Cummings Mines Ltd.	7 King St. W., Toronto, Ontario	Bourlamaque
Gothic Gold Mines Ltd.	80 Richmond St. W., Suite A, Toronto, Ontario	Duvernay Twp.
Gunnar Gold Mines Ltd.	80 King St. W., Toronto, Ontario	Opawica Lake
Harricana Gold Mine Incorporated	330 Bay St., Toronto, Ontario	Bourlamaque
Hebecourt Gold Mines Ltd.	132, rue St-Jacques Ouest, Montréal	Canton Twp.
Heva Gold Mines Ltd.	100 Adelaide Ste. W., Toronto, Ontario	Joannes Twp.
Huclif Porcupine Mines Ltd.	229 Yonge St., Toronto, Ontario	Rouyn Twp.
Joannes Goldfields Ltd.	1117 Ste. Catherine St. W., Montreal	Dassarat Twp.
Karpus Gold Mines Ltd.	25 King St. W., Toronto, Ontario	Louvicoourt Twp.
Kayrand Mining and Development Co., Ltd.	215 St. James St. W., Montreal	Merrill Island
Kenenco Explorations, (Canada) Ltd.	1010 Ste. Catherine St. W., Montreal 2	Guercheville Twp.
Keyboycon Mines Ltd.	330 Bay St., Toronto, Ontario	Vauquelin Twp.
Kokko Creek Mining Corporation Ltd.	132 St. James St. W., Montreal	Kokko Creek
La Flamme & La Haye	139, rue de Montmorency, Québec	Cranbourne
Lake Wasa Mining Corporation	Arntfield, Quebec	Beauchastel Twp.
Lamaque Mining Co., Ltd.	Bourlamaque, Quebec	Bourlamaque
Lavalle Mines Ltd.	24 King St. W., Toronto, Ontario	Bourlamaque
Laurentide (Chibougamau) Mines Ltd.	360 Craig St. W., Montreal	Mackenzie Twp.
Louvicoourt Goldfields Corporation	100 Adelaide St. W., Toronto, Ontario	Bourlamaque
Malartic Gold Fields Ltd.	355 St. James St. W., Montreal	Fourniere Twp.
Marbenor Malartic Mines Ltd.	330 Bay St., Toronto, Ontario	Dubuisson Twp.
McIntyre Porcupine Mines, Ltd.	25 King St. W., Toronto 1, Ontario	Lesseur Twp.
Mining Corporation of Canada, The, Ltd.	44 King St. W., Toronto 1, Ontario	Kreighoff Twp.
Moneta Porcupine Mines, Ltd.	320 Bay St., Toronto, Ontario	Verneuil Twp.
Mylamaque Mines Ltd.	40 Adelaide St. W., Toronto, Ontario	Bourlamaque
National Malartic Gold Mines Ltd.	360 St. James St. W., Montreal, Quebec	Malartic
Nemrod Mining Co., Ltd.	4 East Notre Dame St., Montreal	Louvicoourt
New Goldvue Mines Ltd.	100 Adelaide St. W., Toronto, Ontario	Amos, Quebec
New Jersey Zinc Explorations Ltd.	80 St. Peter St., Quebec	Desjardins Twp.
Norlantic Mines Ltd.	330 Bay St., Toronto, Ontario	Malartic Twp.
Nortyne Gold Mines Ltd.	217 Bay St., Toronto, Ontario	Manneville Twp.
Nubar Mines Limited	330 Bay St., Toronto, Ontario	Souart Twp.
O'Brien Gold Mines, Ltd.	Kewagama, Quebec	Cadillac Twp.
Osisko Lake Mines Ltd.	25 King St. W., Toronto 1, Ontario	Rouyn Twp.
Perron Gold Mines Ltd.	Perron, Quebec	Senneville Twp.
Powell Rouyn Gold Mines Ltd.	Box 200, Noranda, Quebec	Noranda
Preston East Dome Mines Ltd.	South Porcupine, Ontario	Pouliaries Twp.
Quebec Chibougamau Goldfields Ltd.	132 St. Jacques St., Montreal	Levy
Quebec Smelting and Refining Ltd.	215 St. James St. W., Montreal	Obalski Twp.
Quesabe Mines Limited	320 Bay St., Toronto, Ontario	Quesabe
Randona Quebec Gold Mines Ltd.	330 Bay St., Toronto, Ontario	Dufresnoy Twp.
Rouandah Gold and Metals Ltd.	100 Adelaide St. W., Toronto, Ontario	Beaucastel Twp.
Royran Gold Fields Ltd.	215 St. James St. W., Montreal	Obalski Twp.
Quartz Bleu du Saguenay, Le	235 St-Joseph d'Alma, Quebec	Labarre
Senator Rouyn Ltd.	Box 780, Noranda, Quebec	Noranda
Shawkey (1945) Mines Ltd.	80 King St. W., Toronto, Ontario	Dubuisson
Sigma Mines (Quebec) Ltd.	Bourlamaque, Quebec	Bourlamaque
Siscoe Gold Mines Ltd.	907 Dominion Square Bldg., Montreal	Siscoe Island
South Dufault Mines Ltd.	302 Bay St., Toronto, Ontario	Rouyn Twp.
Stadacona Mines (1944) Ltd.	P.O. Box 390, Rouyn, Quebec	Rouyn
Starcourt Gold Mines Ltd.	85 Richmond St. W., Toronto, Ontario	Bourlamaque
Sullivan Consolidated Mines Ltd.	1604-Aldred Building, Montreal	Dubuisson Twp.
Tasmaque Gold Mines Ltd.	145 Yonge St., Toronto, Ontario	Louvicoourt Twp.
Teck Exploration Co. Ltd.	25 King St. W., Toronto, Ontario	Queylus Twp.
Timmins, N.A. (1938) Ltd.	1010 Canada Cement Bldg., Montreal 2	Montalambert
Titanic Mine Holding Ltd.	215 St. James St. W., Montreal	Merrill Island
United Mic Mac Mines Ltd.	100 Adelaide St. W., Toronto, Ontario	Bousquet Twp.
Wildor Gold Mines Ltd.	357 Bay St., Toronto, Ontario	Bourlamaque Twp.
Wright-Hargreaves Mines, Ltd.	Canadian Bank of Commerce, Fort Erie, Ontario	Barlow
<b>Ontario:</b>		
<b>Porcupine District</b>		
Aunor Gold Mines Ltd.	1600, Royal Bank Building, Toronto	Timmins
Bonetal Gold Mines Ltd.	1705, Sterling Tower Bldg., 372 Bay St., Toronto	Pamour
Bonwhit Mines Ltd.	1705, Sterling Tower Bldg., 372 Bay St., Toronto	Pamour
Broulan Reef Mines Ltd.	1705, Sterling Tower Bldg., 372 Bay St., Toronto	Whitney Twp.
Buffalo Ankerite Gold Mines Ltd.	Box 533, South Porcupine	Deloro Twp.
Carshaw Porcupine Gold Mines Ltd.	906, Canada Bldg., Windsor	Carman Twp.
Conisurum Mines Ltd.	25 King St. W., Toronto	Tisdale Twp.
Delnite Mines Ltd.	Box 590, Timmins	Deloro Twp.
Dome Mines Ltd.	South Porcupine	Tisdale Twp.
Hallnor Mines Ltd.	1700 Bank of Nova Scotia Building, Toronto	Whitney Twp.
Hollinger Consolidated Gold Mines Ltd.	Timmins	Hisplo Twp.
Hugh-Pam Porcupine Mines Ltd.	50 King St. W., Toronto	Cochrane District
McIntyre Porcupine Mines Ltd.	Schumacher	Schumacher
Midcamp Mines Ltd.	1600, Royal Bank Building, Toronto	Tisdale Twp.
Pamour Porcupine Mines Ltd.	Pamour	Whitney Twp.
Paymaster Consolidated Mines Ltd.	Box 100, South Porcupine	Deloro and Tisdale Twp.
Preston East Dome Mines Ltd.	Box 545, South Porcupine	South Porcupine



## Directory of Firms in the Gold Mining Industry, 1951 - Continued

Name	Head or executive office address	Location
(b) Auriferous Quartz Mining Industry - Continued		
<b>Ontario: Concluded</b>		
<b>Kirkland Lake District</b>		
Gateford Mines Ltd.	40 Adelaide St. W., Toronto	Swastika
Kirkland Lake Gold Mining Co. Ltd.	1314, Metropolitan Building, Toronto	Teck Twp.
Lake Shore Mines Ltd.	Kirkland Lake	Kirkland Lake
Macassa Mines Ltd.	85 Richmond St. W., Toronto	Kirkland Lake
Northland Mines (1940) Ltd.	171 Yonge St., Toronto	
Queenston Gold Mines Ltd.	1101 Federal Bldg., Toronto	Dobie
Sylvanite Gold Mines Ltd.	Box 670, Kirkland Lake	Teck Twp.
Teck-Hughes Gold Mines Ltd., The	14 Finkle St., Woodstock	Kirkland Lake
Toburn Gold Mines Ltd.	1809, Royal Bank Building, Toronto	Kirkland Lake
Upper Canada Mines Ltd.	1101, Federal Building, Toronto	Gauthier Twp.
Wright-Hargreaves Mines Ltd.	Fort Erie	Kirkland Lake
<b>Larder Lake District</b>		
Cathroy Larder Mines Ltd.	171 Yonge St., Toronto	McElroy Twp.
Chesterville Mines Ltd.	330 Bay St., Toronto	McGarry Twp.
Kerr-Addison Gold Mines Ltd.	44 King St. W., Toronto	McGarry Twp.
<b>Matachewan District</b>		
Hollinger Consolidated Gold Mines Ltd.	Timmins	Powell Twp.
Matachewan Consolidated Mines Ltd.	25 King St. W., Toronto	Powell Twp.
<b>Sudbury District</b>		
New Delhi Mines Ltd.	330 Bay St., Toronto, Ontario	Delhi Twp.
Greenray Mines Ltd.	56 Esplanade St., Toronto	Shakespeare Twp.
Ladulama Gold Mines Ltd.	330 Bay St., Toronto 1	Leeson Twp.
Renable Mines Ltd.	85 Richmond St. W., Toronto	Sudbury
<b>Thunder Bay District</b>		
Amichi Gold Mines Ltd.	200 Bay St., Toronto	Michibishu Lake
Hard Rock Gold Mines Ltd.	Geraldton	Ashmore Twp.
Leitch Gold Mines Ltd.	Beardmore	Summers Twp.
Little Long Lac Gold Mines Ltd.	25 King St. W., Toronto	Errington Twp.
MacLeod-Cockshutt Gold Mines Ltd.	357 Bay St., Toronto	Geraldton
Magnet Consolidated Mines Ltd.	185 Bay St., Toronto	Geraldton
New Mosher Long Lac Mines Ltd.	67 Yonge St., Toronto	Long Lac
Roche Long Lac Gold Mines Ltd.	7 King St. W., Toronto	Long Lac
Theresa Gold Mines Ltd.	Long Lac	Theresa
Tombill Gold Mines Ltd.	217 Bay St., Toronto 1	Geraldton
<b>Kenora District</b>		
Duport Mining Co. Ltd.	25 King St. W., Toronto	Shoal Lake
Cone, R.C.	Mine Centre	Shoal Lake
<b>Patricia District</b>		
Brewis Red Lake Mines Ltd.	40 Adelaide St. W., Toronto	Balmer Twp.
Campbell Red Lake Mines Ltd.	Balmerton	Balmer Twp.
Central Manitoba Mines Ltd.	274 Fort St., Winnipeg, Manitoba	Nee-pawa Island
Central Patricia Gold Mines Ltd.	Central Patricia	Central Patricia
Cochonour Williams Gold Mines Ltd.	801, Dominion Bank Bldg., Toronto	Dome Twp.
Conecho Mines Ltd.	44 King St. W., Toronto	Echo Twp.
Delta Minerals Ltd.	125 Yonge St., Toronto	Red Lake
Hassaga Gold Mines Ltd.	25 King St. W., Toronto	Dome Twp.
Headway Red Lake Gold Mines Ltd.	67 Yonge St., Toronto	Heyson Twp.
Heath Gold Mines Ltd.	357 Bay St., Toronto	Todd Twp.
Lun-Echo Gold Mines	67 Yonge St., Toronto	Echo Twp.
McKenzie Red Lake Gold Mines Ltd.	McKenzie Island	McKenzie Island
Madsen Red Lake Gold Mines Ltd.	67 Yonge St., Toronto	Heyson Twp.
New Dickenson Mines Ltd.	145 Yonge St. W., Toronto	Balmer Twp.
New Jason Mines Ltd.	7 King St. W., Toronto	Casummit Lake
Newlund Mines Ltd.	80 King St. W., Toronto	Echo Twp.
Pickle Crow Gold Mines, Ltd.	Pickle Crow	Connell Twp.
Starratt Olsen Gold Mines Ltd.	25 King St. W., Toronto	Baird Twp.
Windward Gold Mines Ltd.	44 King St. W., Toronto	Echo Twp.
<b>Manitoba:</b>		
Forty-Four Mines Ltd.	237, Curry Bldg., Winnipeg	Rice Lake
Howe Sound Exploration Co. Ltd.	Snow Lake	Snow Lake
Jeep Gold Mine Ltd.	237, Curry Bldg., Winnipeg	Rice Lake
Ogama Kirkland Gold Mines Ltd.	80 King St. W., Toronto, Ontario	Long Lake
San Antonio Gold Mines Ltd.	237, Curry Bldg., Winnipeg	Bissett
<b>British Columbia:</b>		
Alpine Gold Ltd.	Box 83, Nelson	Sitkum Creek
Bowen and Torguson	Zeballos	Alberni
Bralorne Mines, Ltd.	555 Burrard St., Vancouver	Bralorne
Cariboo Gold Quartz Mining Co. Ltd.	675 W. Hastings St., Vancouver	Cariboo
Gem Gold Mines Ltd.	1604, Royal Bank Bldg., Vancouver	Nanaimo
Golden Contact Mines Ltd.	736 Granville St., Vancouver	Lillooet
Harbour, H.L.	Box 10, Slocan City	Slocan
Hovland, John	Stewart	Portland Canal
Island Mountain Mines Ltd.	Wells	Cariboo
Kelowna Exploration Co., Ltd.	Hedley	Osogoo & Slocan
Kootenay Belle Gold Mines Ltd.	Sheep Creek	Nelson

## Directory of Firms in the Gold Mining Industry, 1951 - Continued

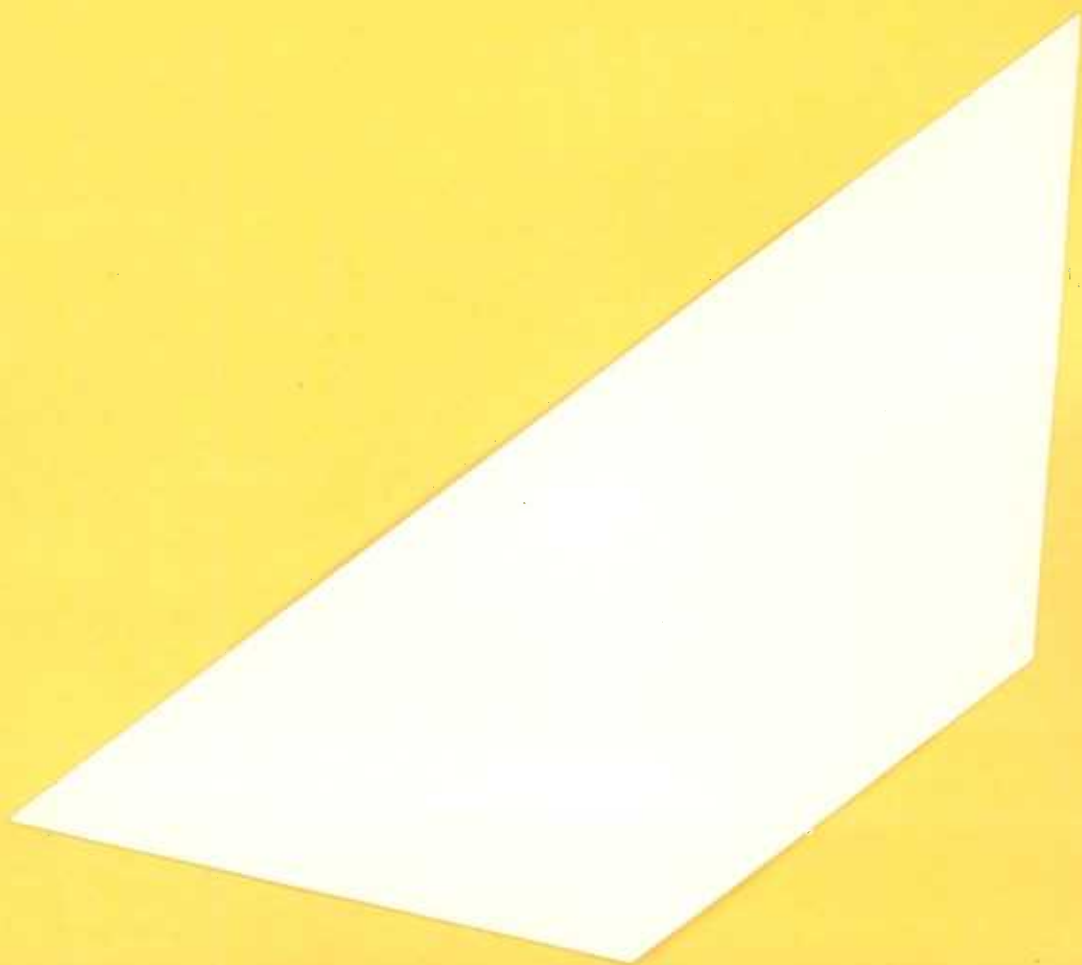
Name	Head or executive office address	Location
(b) Auriferous Quartz Mining Industry - Concluded		
<b>British Columbia: - Concluded</b>		
Northwestern Explorations Ltd.	1010 St. Catherine St. W., Montreal, Quebec	Omineca
Nugget Mine c/o A. Enderby	Fruitvale	Nelson
Phillips, A.A.	Stewart	Portland Canal
Pioneer Gold Mines of B.C., Ltd.	711, Yorkshire Bldg., Vancouver	Lillooet
Polaris-Taku Mining Co., Ltd.	525 Seymour St., Vancouver	Atlin
Providence Mine	Greenwood	Greenwood
Sheep Creek Gold Mines Ltd.	209, Williams Bldg., Vancouver	Nelson
Surf Inlet Consolidated Gold Mines Ltd.	615 W. Hastings St., Vancouver	Vancouver
Spud Valley Gold Mines	525 Seymour St., Vancouver	Alberni
Zeballos Leasing Co.	Zeballos	Alberni
<b>Northwest Territories:</b>		
Akaltcho Yellowknife Gold Mines Ltd.	25 King St. W., Toronto, Ontario	Yellowknife
American Yellowknife Gold Mines Ltd.	19 Richmond St. W., Toronto, Ontario	Yellowknife
Consolidated Mining & S. Co. of Canada, Ltd.	Trail, British Columbia	Yellowknife
Discovery Yellowknife Mines Ltd.	19 Richmond St., W., Toronto, Ontario	Yellowknife
Giant Yellowknife Gold Mines Ltd.	25 King St., W., Toronto, Ontario	Yellowknife
Negus Mines Ltd.	410, Royal Bank Bldg., Toronto, Ontario	Yellowknife
Saimita Consolidated Mines Ltd.	73 Adelaide St. W., Toronto, Ontario	Yellowknife
Thompson-Lundmark Gold Mines Ltd.	320 Bay St., Toronto, Ontario	Yellowknife
(c) Copper-Gold-Silver Mining Industry		
<b>Newfoundland:</b>		
Cape Copper Mines Ltd.	100 Adelaide St. W., Toronto, Ontario	Gregory River
Pilley's Island Copper-Pyrite Ltd.	38 King St. W., Toronto, Ontario	Pilley's Island
<b>Quebec:</b>		
Abex Mines Ltd.	330 Bay St., Toronto, Ontario	Duhamel Twp.
Albert Metals Corporation Ltd.	P.O. Box 492, Sherbrooke, Quebec	Languedoc Twp.
Area Mines Ltd.	44 King St. W., Toronto, Ontario	Holland Twp.
Beaupre Base Metals Mines Ltd.	1596 Danforth Ave., Toronto, Ontario	Perron
Buffalo Canadian Gold Mines Ltd.	44 King St. W., Toronto, Ontario	Rouyn Twp.
Campbell Chibougamau Mines Ltd.	625 Dorchester St. W., Montreal	Chibougamau
Carlson Mines Ltd.	90 Perreault St. E., Rouyn, Quebec	Dufay
Chibougamau Explorers Ltd.	620 Cathcart St. W., Montreal, Quebec	Senneterre
Chicobi Lake Mines Ltd. (N.P.L.)	25 King St. W., Toronto 1, Ontario	Languedoc Twp.
Citra-Lartic Mines Ltd. (N.P.L.)	22 King St., Toronto, Ontario	Barraute Twp.
Consolidated Astoria Mines Ltd. (N.P.L.)	62 Richmond St. W., Toronto 1, Ontario	Louvicoeur Twp.
Consolidated Lebel Oro Mines Ltd.	22 Toronto St., Toronto, Ontario	Barraute Twp.
Cranold Mines Ltd.	45 Richmond St. W., Toronto 1, Ontario	Rouyn Twp.
Damascus Mines Ltd.	25 King St. W., Toronto, Ontario	Barraute Twp.
Despina Gold Mines Ltd. (N.P.L.)	79 Wall St., New York, N.Y., U.S.A.	Rouyn Twp.
East Sullivan Mines Ltd.	1604, Aldred Bldg., Montreal	Bourlamaque
Flicka Red Lake Mines Ltd.	427 St. James St. W., Montreal	Abitibi
Gaspe Copper Mines Ltd. (N.P.L.)	1709, Bank of Nova Scotia Bldg., Toronto, Ontario	Holland Twp.
Golden Shaft Mines Ltd.	67 Yonge St., Toronto, Ontario	Dasserat Twp.
Holland Gaspe Mines Ltd.	85 Richmond St. W., Toronto, Ontario	Holland Twp.
Inmont Copper Mines Ltd.	330 Bay St., Toronto, Ontario	Montbray
Insko Mines Ltd. (N.P.L.)	355 St. James St. W., Montreal	Dufresnoy
Joliet-Quebec Mines Ltd. (N.P.L.)	25 King St. W., Toronto 1, Ontario	Abitibi
Kenzie Gold Mines Ltd.	132 St. James St. W., Montreal	Chibougamau
Kidihawk Mines Ltd. (N.P.L.)	21 Dundas Square, Toronto, Ontario	La Sarre Twp.
Lake Dufault Mines Ltd. (N.P.L.)	Noranda, Quebec	Dufresnoy Twp.
Lyndhurst Mining Co. Ltd.	360 St. James St. W., Montreal	Destor Twp.
Merrill Island Mining Corporation Ltd.	507, Place d'Armes, Montreal	Abitibi
Miller Copper Mines Ltd.	414 St. James St. W., Montreal	Holland Twp.
New Formaque Mines Ltd.	437 Oues, rue St-Jacques, Montreal, Quebec	Canton Dalquier
New Metalore Mining Co. Ltd.	80 Richmond St. W., Toronto, Ontario	Perron
Noralmac Mines Limited	44 King St. W., Toronto 1, Ontario	Abitibi
Noranda Mines Ltd.	1709, Bank of Nova Scotia Bldg., Toronto, Ontario	Noranda
Northern Canada Mines Ltd.	44 King St. W., Toronto, Ontario	Kreighoff Twp.
North Trinity Mining Corporation	P.O. Box 1197, Val d'Or, Quebec	Barraute
Opemiska Copper Mines (Quebec) Ltd.	25 King St. W., Toronto 1, Ontario	Chibougamau
Osisko Lake Mines, Ltd. (N.P.L.)	25 King St., W., Toronto 1, Ontario	Abitibi
Quebec Copper Corporation Ltd.	132 St. James St. W., Montreal	Bolton Twp.
Quebec Diversified Mining Corporation Limited	35 Notre Dame St., W., Montreal	Barraute
Quemont Mining Corporation Limited	44 King St. W., Toronto 1, Ontario	Rouyn Twp.
Rainville Copper Mines Ltd. (N.P.L.)	25 King St. W., Toronto 1, Ontario	Louvicoeur Twp.
Soma Duvernay Gold Mines Ltd.	507, Place d'Armes, Montreal	Canton Duvernay
Strathallan Enterprises Limited	56 Esplanade St., Toronto, Ontario	Inverness
Tache Lake Mines Ltd. (N.P.L.)	132 St. James St. W., Montreal, Quebec	Chibougamau
Touton Mining & Exploration Co.	507, Place d'Armes, Montreal, Quebec	Fabre Twp.
Vachon & Vachon Société D'exploration Minière	138, rue Cockburn, Drummondville	Broughton
Waite Amulet Mines, Ltd.	Noranda, Quebec	Dufresnoy
Weedon, Pyrite & Copper Corporation	507, Place d'Armes, Montreal, Quebec	Weedon
West Amulet Mines Ltd.	11 King St. W., Toronto, Ontario	Duprat Twp.
Young Chibougamau - Opemiska Mines Ltd.	28 St. James St. W., Montreal	Barraute
<b>Ontario:</b>		
Copper Prince Mines Limited	22 Toronto St., Toronto, Ontario	Falconbridge Twp.
Golden Arrow Mines Limited	67 Yonge St., Toronto, Ontario	Tenigani
Haikin Mines Limited	10 Adelaide St., E., Toronto, Ontario	Clement
New Ryan Lake Mines Limited	Matachewan, Ontario	Matachewan



## Directory of Firms in the Gold Mining Industry, 1951 - Concluded

Name	Head or executive office address	Location
(c) Copper-Gold-Silver Mining Industry - Concluded		
<b>Manitoba:</b>		
Cuprus Mines Limited .....	500, Royal Bank Bldg., Winnipeg, Manitoba .....	Flin Flon
Fairway Flin Flon Mines Limited .....	330 Bay St., Toronto, Ontario .....	Athapapuskow
Hudson Bay Mining & Smelting Company Ltd. ....	500, Royal Bank Bldg., Winnipeg, .....	Flin Flon
Sherritt-Gordon Mines Ltd. ....	25 King St. W., Toronto 1, Ontario .....	Sherridon
Sno-Squall Mines Ltd. ....	64 Main St., Flin Flon, .....	Flin Flon
<b>Saskatchewan:</b>		
Hudson Bay Mining & Smelting Co., Limited .....	500, Royal Bank Bldg., Winnipeg, Manitoba .....	Flin Flon
<b>British Columbia:</b>		
Attwood Copper Mines Limited .....	844 West Hastings St., Vancouver .....	Greenwood
Granby Consolidated Mining, Smelting & Power Co. Ltd. ....	675 West Hastings St., Vancouver .....	Similkameen
Kamloops Copper Company Limited .....	210 Victoria St., Kamloops .....	Kamloops
Nicholson Creek Mining Corporation .....	301, Insurance Bldg., Seattle, Washington, D.C. ....	Omineca
Rico Copper Mines Ltd. ....	1155 W. Pender St., Vancouver .....	Laidlaw
Skookum Payroll Syndicate .....	Port Kells, British Columbia .....	Skookum
Vananda Mines (1948) Ltd. ....	413 Granville St., Vancouver .....	Nanaimo
<b>Northwest Territories:</b>		
Tungsten Corporation of Canada Limited .....	50 King St. W., Toronto, Ontario .....	Outpost Island







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