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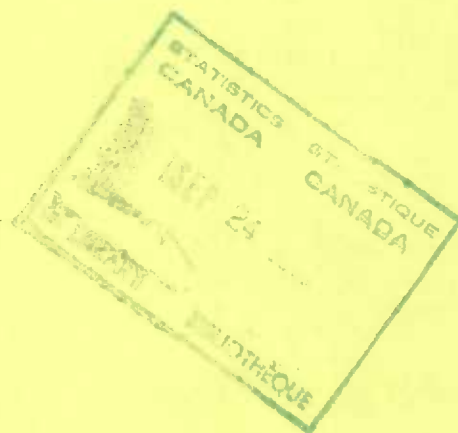


CANADA



THE GOLD MINING INDUSTRY

1961



DOMINION BUREAU OF STATISTICS

Industry Division

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EXPLANATORY NOTES

Establishment

The reporting unit in the Census of Manufactures is the **establishment**. Beginning with the 1961 Census, the establishment is defined as follows:

The smallest unit which is a separate operating entity capable of reporting all the following:

- Materials and supplies used,
- Goods purchased for resale as such,
- Fuel and power consumed,
- Number of employees and their pay,
- Inventories,
- Shipments or sales.

The establishment is to be distinguished from smaller subdivisions or departments which do not have records which permit them to report all items required of an establishment. Prior to 1961, some establishments were required to submit two or more separate reports when they were engaged in operations which were classifiable to different industries. Beginning with 1961, separate reports for such operations will be required only in cases where accounting records can provide all the elements of principal statistics enumerated above. Special reporting arrangements were made with respondents when the acceptance of combined reports would have seriously affected the statistics for particular industries or areas. Where continuity of industry statistics was

affected by this change in reporting procedures, adjustments to the data were made back to 1957 in order to maintain comparability of the series for recent years.

A manufacturing establishment is typically a factory, mill or plant principally engaged in manufacturing operations. Prior to 1961, the Census of Manufactures attempted to cover the manufacturing activities of all establishments, whether or not they were principally engaged in manufacturing operations. Beginning with the 1961 Census, establishments (accounting entities) which are not primarily engaged in manufacturing are no longer included as manufacturing establishments in the basic industry statistics. Again adjustments to the industry statistics were made to reflect the removal of such reporting units for the period 1957-1960. These reporting units are now listed as establishments in other Bureau industry surveys, such as Wholesale Trade, Construction, etc. In order, however, to maintain complete coverage of certain commodity items produced mainly in manufacturing establishments, many non-manufacturing establishments are now surveyed for commodity shipments only and the latter are included in those tables of industry reports showing shipments of certain commodities "from all industries".

SYMBOLS

The interpretation of the symbols used in the tables throughout this publication is as follows:

- .. figures not available.
- ... figures not appropriate or not applicable.
- nil or zero.

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This report includes statistics for industries:

- 051 - Placer Gold Mines
- 052 - Gold Quartz Mines
- 053 - Copper-Gold-Silver Mines

of the Standard Industrial Classification Manual (Catalogue No. 12- 501).

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 Placer Gold Mining Industry"; (b) the recovery of lode gold, which is designated "The Gold 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 1961 the production of gold amounted to 4,473,699 troy ounces valued at \$158,637,366 compared with 4,628,911 ounces valued at \$157,151,527 in 1960. 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 59 per cent of the total. Quebec, in second position, produced 23 per cent and Northwest Territories accounted for 9 per cent of the total. The other provinces ranked in the following order: British Columbia, Saskatchewan, Yukon, Manitoba, Newfoundland and Alberta.

The price of gold in Canadian funds averaged \$35.46 per troy ounce. It ranged from \$34.45 per troy ounce in March 1961 to \$36.50 per troy ounce in December. The fluctuations were due to foreign exchange rates. The Royal Canadian Mint purchased gold on the basis of \$(U.S.) 35.00 per troy ounce. The United States dollar rose above par value in June 1961. It had been discounted since March, 1952.

TABLE 1. Production of Gold, Fifty Years, 1912-61

Year	Troy ounces	Value \$	Year	Troy ounces	Value \$
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
1927	1,852,785	38,300,464	1952	4,471,725	153,246,016
1928	1,890,592	39,082,005	1953	4,055,723	139,597,985
1929	1,928,308	39,861,663	1954	4,366,440	148,764,611
1930	2,102,068	43,453,601	1955	4,541,962	156,788,528
1931	2,693,692	58,093,396	1956	4,383,863	151,024,080
1932	3,044,387	71,479,373	1957	4,433,894	148,757,143
1933	2,949,309	84,350,237	1958	4,571,347	155,334,370
1934	2,972,074	102,536,553	1959	4,483,416	150,508,275
1935	3,284,890	115,595,279	1960	4,628,911	157,151,527
1936	3,748,028	131,293,421	1961	4,473,699	158,637,366

TABLE 2. Total (Cumulative) Recorded Production of Specified Metals to December 31, 1961

		Since	Quantity	Value \$
Gold	troy ounce	1858	161,795,340	5,112,420,454
Silver	"	1887	1,267,374,788	846,965,040
Copper	ton	1886	10,014,567	3,959,289,731
Nickel	"	1889	4,840,800	4,051,316,002
Lead	"	1887	7,410,173	1,174,403,550
Zinc	"	1898	...	1,834,854,028
Cobalt	ton	1904	33,700	101,879,438

TABLE 3. Production of Gold from Auriferous Quartz and Base Metal Mines, by Months, 1959-61

	Gold production from base metal mines			Gold production from auriferous quartz mines and placer deposits			Gold production from all types of mines		
	1959	1960	1961	1959	1960	1961	1959	1960	1961
troy ounces									
January	42,191	49,368	51,847	333,895	328,705	330,818	376,086	378,073	382,665
February	45,289	50,410	52,033	312,763	322,254	313,001	358,052	372,664	365,034
March	48,254	52,019	55,191	330,144	338,012	342,948	378,398	390,031	398,139
April	47,618	50,056	53,926	329,177	317,774	326,162	376,795	367,830	360,088
May	47,837	45,567	56,102	332,182	334,561	333,876	380,019	380,128	389,978
June	43,382	53,924	52,451	315,622	335,158	318,889	359,004	389,082	371,340
July	46,150	53,121	50,678	332,860	344,366	311,169	379,010	397,487	361,847
August	45,276	55,631	48,376	304,194	328,302	313,639	349,470	383,933	362,015
September	48,689	50,934	46,986	315,299	320,783	302,336	363,988	371,717	349,322
October	47,673	51,847	48,271	349,052	353,632	318,318	396,725	405,479	366,589
November	49,941	50,733	57,474	338,871	344,482	316,049	388,812	395,215	373,523
December	46,068	54,131	56,602	330,989	343,141	316,557	377,057	397,272	373,159
Totals	558,368	617,741	629,937	3,925,048	4,011,170	3,843,782	4,483,416	4,628,911	4,473,699

TABLE 4. Production of Gold,¹ by Provinces, 1952-61

Year	Newfoundland		Nova Scotia		Quebec		Ontario		Manitoba	
	Troy ounces	Value	Troy ounces	Value	Troy ounces	Value	Troy ounces	Value	Troy ounces	Value
		\$		\$		\$		\$		\$
1952	8,595	294,551	1,433	49,109	1,113,204	38,149,501	2,513,691	86,144,910	141,947	4,864,524
1953	7,654	263,451	3,248	111,796	1,021,698	35,166,845	2,182,437	75,119,481	131,309	4,519,656
1954	6,528	222,409	3,754	127,899	1,098,570	37,428,280	2,361,385	80,452,387	134,944	4,597,542
1955	6,337	218,753	3,880	133,938	1,154,522	39,854,099	2,523,040	87,095,340	123,888	4,276,614
1956	8,213	282,938	1,279	44,061	1,036,059	35,692,233	2,513,912	86,604,268	120,232	4,141,992
1957	9,755	327,280	45	1,510	1,006,695	33,781,327	2,578,206	86,498,811	120,008	4,026,268
1958	13,381	454,686	131	4,451	1,044,846	35,503,867	2,716,514	92,307,146	87,356	2,968,357
1959	13,411	450,207	—	—	999,388	33,549,455	2,683,449	90,083,383	51,186	1,718,314
1960	13,515	458,834	3	102	1,035,914	35,169,280	2,732,673	92,774,248	52,762	1,791,270
1961	14,429	511,652	—	—	1,054,029	37,375,868	2,637,720	93,533,551	57,747	2,047,709
	Saskatchewan		Alberta		British Columbia		Northwest Territories		Yukon	
1952	93,585	3,207,158	111	3,804	273,059	9,357,732	247,581	8,484,601	78,519	2,690,846
1953	88,327	3,040,215	65	2,237	264,976	9,120,474	289,929	9,979,356	66,080	2,274,474
1954	101,785	3,467,815	195	6,644	268,508	9,148,068	308,563	10,512,741	82,208	2,800,826
1955	83,580	2,885,182	214	7,387	252,979	8,732,835	321,321	11,092,001	72,201	2,492,379
1956	82,687	2,848,567	119	4,100	196,692	6,776,040	352,669	12,149,447	72,001	2,480,434
1957	75,236	2,524,168	416	13,957	229,113	7,686,741	340,018	11,407,604	73,962	2,481,425
1958	86,590	2,942,328	282	9,582	210,612	7,156,596	343,838	11,683,615	67,745	2,301,975
1959	78,588	2,638,199	200	6,714	184,312	6,187,354	405,922	13,626,802	66,960	2,247,847
1960	84,775	2,878,111	191	6,484	212,859	7,226,563	418,104	14,194,631	78,115	2,652,004
1961	70,784	2,510,000	171	6,064	164,467	5,632,000	407,474	14,449,028	66,878	2,371,494

¹ From all sources.

Note: New Brunswick gold in 1957: 240 ounces; in 1958: 52 ounces.

TABLE 5. Production of Gold, by Provinces, according to Nature of Ores, 1960 and 1961

Year and province	Placer gold	Auriferous quartz ores	Copper-gold-silver ores	Nickel-copper ores	Silver-lead and other ores	Total
	troy ounces					
1960						
Newfoundland	—	—	4,929	—	8,586	13,515
Nova Scotia	—	3	—	—	—	3
New Brunswick	—	—	—	—	—	—
Quebec	—	641,313	387,112	—	7,489	1,035,914
Ontario	—	2,666,533	8,425	56,665	1,050	2,732,673
Manitoba	—	31,172	20,747	843	—	52,762
Saskatchewan	—	—	84,775	—	—	84,775
Alberta	191	—	—	—	—	191
British Columbia	2,498	173,241	24,188	—	12,932	212,859
Northwest Territories	—	416,104	—	—	—	416,104
Yukon	78,115	—	—	—	—	78,115
Canada	80,804	3,930,366	530,176	57,508	30,057	4,628,911

TABLE 5. Production of Gold, by Provinces, according to Nature of Ores, 1960-61 - Concluded

Year and province	Placer gold	Auriferous quartz ores	Copper-gold-silver ores	Nickel-copper ores	Silver-lead and other ores	Total
troy ounces						
1961						
Newfoundland	—	—	5,663	—	8,766	14,429
Nova Scotia	—	—	—	—	—	—
New Brunswick	—	—	—	—	—	—
Quebec	478	631,759	408,863	—	12,929	1,054,029
Ontario	—	2,569,448	8,423	58,778	1,071	2,637,720
Manitoba	—	31,025	26,193	529	—	57,747
Saskatchewan	—	—	70,784	—	—	70,784
Alberta	171	—	—	—	—	171
British Columbia	2,484	134,816	16,182	—	10,985	164,467
Northwest Territories	—	407,474	—	—	—	407,474
Yukon	66,107	—	—	—	771	66,878
Canada	69,240	3,774,522	536,108	59,307	34,522	4,473,699

TABLE 6. Gold Production by Provinces and Principal Areas, 1959-61

Province and area	1959		1960		1961	
	Troy ounces	Value	Troy ounces	Value	Troy ounces	Value
		\$		\$		\$
Newfoundland	13,411	450,207	13,515	458,834	14,429	511,652
Nova Scotia	—	—	3	102	—	—
New Brunswick	—	—	—	—	—	—
Quebec:						
Gold mines	620,111	20,817,126	641,313	21,772,576	632,237	22,443,134
Base metal mines	379,277	12,732,329	394,601	13,396,704	421,792	14,696,744
Totals	999,388	33,549,455	1,035,914	35,169,280	1,054,029	37,375,868
Ontario:						
Gold mines:						
Porcupine	1,089,699	36,581,195	1,084,537	36,820,031	1,075,161	38,125,209
Kirkland Lake	352,250	11,825,033	332,939	11,303,279	301,806	10,702,041
Larder Lake	567,304	19,044,395	592,244	20,106,684	520,868	18,469,979
Matachewan	112	3,760	80	2,716	111	3,936
Sudbury	36,350	1,220,269	39,035	1,325,238	37,934	1,345,140
Thunder Bay	103,228	3,465,364	106,358	3,610,854	110,081	3,903,472
Patricia	484,552	16,266,411	511,323	17,359,416	523,465	18,562,069
Other mines	49,954	1,676,956	66,157	2,246,030	68,294	—
Totals	2,683,449	90,083,383	2,732,673	92,774,248	2,637,720	93,533,531
Manitoba:						
Gold mines	29,487	989,879	31,172	1,058,289	31,025	1,100,147
Other mines	21,699	728,435	21,590	732,981	26,722	947,562
Totals	51,186	1,718,314	52,762	1,791,270	57,747	2,047,709
Saskatchewan:						
Gold mines	—	—	—	—	—	—
Other mines	78,588	2,638,199	84,775	2,878,111	70,784	2,510,000
Totals	78,588	2,638,199	84,775	2,878,111	70,784	2,510,000
Alberta (placer)	200	6,714	191	6,484	171	6,064
British Columbia:						
Gold mines (lode)	163,042	5,473,320	173,241	5,881,532	134,816	4,780,575
Gold mines (placer)	5,814	195,176	2,498	84,807	2,484	88,083
Other mines	15,456	518,858	37,120	1,260,224	27,167	963,342
Totals	184,312	6,187,354	212,859	7,226,563	164,467	5,832,000
Northwest Territories:						
Gold mines and placer	405,922	13,626,802	418,104	14,194,631	407,474	14,449,028
Yukon (chiefly placer)	66,960	2,247,847	78,115	2,652,004	66,878	2,371,494
Totals, Canada	4,483,416	150,508,275	4,628,911	157,151,527	4,473,699	158,637,699

TABLE 7. Gold Production of the World,¹ 1957-61

Country	1957	1958	1959	1960	1961
	fine ounces				
North America:					
United States	1,800,000	1,759,000	1,635,000	1,679,800	1,566,800
Canada	4,433,894	4,571,347	4,483,416	4,628,911	4,473,699
Mexico	346,320	332,238	313,655	300,249	268,678
Totals, North America	6,580,214	6,662,585	6,432,071	6,608,960	6,309,177
Central America and West Indies	210,435	221,232	224,702	214,149	227,935
South America:					
Bolivia	27,865	19,115	35,246	45,457	80,184
Brazil ²	120,755	116,190	112,332	118,891	118,955
British Guiana	16,491	17,500	3,448	2,364	1,702
Chile	103,587	70,858	72,177	54,350	56,488
Colombia	325,130	371,715	397,928	433,947	401,064
Ecuador	16,840	19,311	18,177	15,061	15,210
French Guiana	9,549	20,000	16,100	18,936	7,944
Peru	165,093	159,127	150,299	141,001	137,418
Surinam	6,526	4,244	5,819	4,932	4,019
Venezuela	75,976	89,654	53,740	46,867	30,071
Total South America, as reported	867,432	887,714	865,266	881,806	853,053
Europe	400,000	500,000	500,000	600,000	700,000
Australia:					
New South Wales	31,043	18,709	13,275	13,628	12,034
Queensland	63,363	74,568	91,687	78,267	64,786
Victoria	45,752	41,476	34,662	28,566	26,229
Western Australia	849,751	874,819	860,969	869,966	870,658
Tasmania	20,027	21,744	21,353	23,994	26,885
Other Australia	74,005	72,664	63,158	72,288	75,700
Total Australia (Commonwealth)	1,083,941	1,103,980	1,085,104	1,086,709	1,076,292
Oceania, other:					
Fiji	78,807	81,827	72,566	72,203	74,137
New Guinea	69,030	43,812	46,820	45,151	41,820
New Zealand	30,195	24,932	37,662	33,326	28,294
Total Oceania other	178,032	150,571	157,048	150,680	144,251
Asia:					
India	179,198	170,109	165,380	160,589	156,538
Japan	302,706	308,450	328,186	336,003	378,913
Korea, Republic of	66,576	73,163	65,688	66,810	84,013
Malaya	11,157	22,484	26,739	20,745	12,486
Philippines Republic	379,982	422,833	402,615	410,618	423,983
Saudi Arabia	19,483	20,265	13,497	17,207	17,490
Taiwan (Formosa)	—	—	—	—	—
Total Asia, as reported	959,102	1,017,304	1,002,105	1,010,972	1,073,423
Africa:					
Bechuanaland	190	215	198	203	261
Cameroons	10,899	2,009	971	415	538
Congo, Republic of	7,404	6,048	3,665	2,628	1,788
Ethiopia	25,000	36,369	41,439	40,915	41,500
Gabon, Republic of	22,727	15,921	16,172	17,696	15,286
Ghana	788,151	851,433	902,595	893,113	852,619
Katanga, State of	374,258	356,126	351,078	316,195	232,605
Kenya	7,387	7,753	9,145	8,522	12,100
Liberia	381	400	1,355	1,119	2,088
Madagascar	842	804	193	273	347
Nigeria	487	646	950	994	676
Sierra Leone	—	—	—	—	—
Southern Rhodesia	536,849	554,838	566,882	562,703	—
Tanganyika (exports)	63,280	68,250	95,794	107,009	99,574
Uganda	243	292	384	780	470
Union of South Africa	17,031,690	17,656,442	20,066,753	21,386,114	22,946,294
Total Africa, as reported	18,869,788	19,557,546	22,057,574	23,338,679	24,776,241
Russia ³	10,000,000	10,000,000	10,000,000	11,000,000	12,000,000
Total world, as reported	39,149,144	40,100,932	42,323,870	44,891,955	47,160,374
Estimated world totals⁴	39,500,000	40,600,000	42,800,000	45,400,000	47,700,000

¹ In compiling this table, free use has been made of the reports of the Director of the Mint, the U.S. Bureau of Mines and other publications.² Mined gold only; production of alluvial gold unknown.³ Conjectural.⁴ This estimate includes the following countries which also produce gold: Angola, Argentina, Austria, Bulgaria, Burma, Cambodia, China, Czechoslovakia, East Germany, Egypt, Eritrea, Hungary, Indonesia, Mozambique, North Korea, Northern Rhodesia, Papua, Rumania, Sarawak, Sudan and Thailand, from whom definitive figures are not available.

Source: "Annual Report of the American Bureau of Metal Statistics".

TABLE 8. Gold Production according to Method of Computation and Recovery, 1951-61

Year	In alluvial gold	In crude gold bullion produced at mines ¹	In base bullion produced at lead smelters	In blister and anode copper produced ²	In ores, matte, slags, etc., exported	Total gold produced
	per cent					fine ounces
1951	2.19	81.86	0.33	12.20	3.42	4,392,751
1952	2.08	83.22	0.39	11.37	2.94	4,471,725
1953	1.91	84.11	0.25	9.77	3.96	4,055,723
1954	2.05	83.14	0.34	11.18	3.29	4,366,440
1955	1.73	83.10	0.16	12.15	2.86	4,541,962
1956	1.71	83.66	0.17	12.88	1.58	4,383,863
1957	1.72	83.98	0.32	12.40	1.58	4,433,894
1958	1.57	84.06	0.20	12.64	1.53	4,571,347
1959	1.63	84.47	0.21	12.52	1.17	4,483,416
1960	1.75	83.18	0.26	12.82	1.99	4,628,911
1961	1.55	83.08	0.22	13.25	1.90	4,473,699

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 9. Estimated Average Monthly Value of an Ounce of Fine Gold, Expressed in Canadian Funds, 1940-61

Month	1940-45	1946	1947-48	1949 ¹	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
	dollars															
January	38.50	38.50	35.00	35.00	38.50	36.81	35.19	33.97	34.05	33.81	34.95	33.62	34.46	33.84	33.36	34.76
February	38.50	38.50	35.00	35.00	38.50	36.73	35.03	34.20	33.83	34.19	34.97	33.54	34.34	34.12	33.31	34.62
March	38.50	38.50	35.00	35.00	38.50	36.65	34.85	34.44	33.96	34.45	34.95	33.46	34.21	33.93	33.28	34.56
April	38.50	38.50	35.00	35.00	38.50	37.07	34.34	34.43	34.39	34.52	34.89	33.59	33.97	33.73	33.70	34.61
May	38.50	38.50	35.00	35.00	38.50	37.25	34.43	34.79	34.45	34.51	34.71	33.45	33.84	33.70	34.24	34.56
June	38.50	38.50	35.00	35.00	38.50	37.42	34.26	34.80	34.34	34.45	34.48	33.36	33.67	33.56	34.39	35.19
July	38.50	35.35	35.00	35.00	38.50	37.12	33.93	34.72	34.10	34.46	34.37	33.29	33.60	33.51	34.24	36.19
August	38.50	35.00	35.00	35.00	38.50	36.96	33.65	34.59	33.96	34.48	34.34	33.18	33.76	33.41	33.95	36.10
September	38.50	35.00	35.00	36.52	38.50	36.94	33.59	34.45	33.94	34.57	34.22	33.56	34.19	33.31	34.03	36.08
October	38.50	35.00	35.00	38.50	36.86	36.78	33.75	34.39	33.94	34.84	34.07	33.77	33.98	33.17	34.24	36.07
November	38.50	35.00	35.00	38.50	36.43	36.53	34.17	34.22	33.93	34.98	33.75	33.67	33.89	33.26	34.19	38.26
December	38.50	35.00	35.00	38.50	36.83	35.89	33.97	34.06	33.88	34.98	33.62	34.22	33.76	33.29	34.43	36.49
Yearly averages	38.50	36.75	35.00	36.00	38.05	36.85	34.27	34.42	34.07	34.52	34.45	33.55	33.98	33.57	33.95	35.46

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

TABLE 10. Precious Metals Consumed by the Jewellery and Silverware Industry, 1957-60

Material	Cost at works			
	1957	1958	1959	1960
	dollars			
Fine gold	4,585,764	5,044,225	5,324,330	6,728,468
Gold alloys	1,403,075	1,633,143	1,662,361	1,417,360
Fine silver	3,975,569	2,801,283	3,258,106	3,045,885
Silver alloys and sterling	2,554,281	2,354,492	2,496,816	2,004,301
Platinum	1,182,835	3,258,208	2,549,125	759,035
Palladium	275,092	1,143,382	1,287,587	494,006
Old gold, jewellers' findings, waste and scrap refining	1,651,414	1,020,928	972,129	1,453,611
Gold-filled wire and stock	151,113	143,909	124,531	150,597
Precious and semi-precious stones	3,632,668	4,073,739	3,630,460	4,241,040

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)

Summary of Operations for the Year 1961

The Emergency Gold Mining Assistance Act was amended by Chapter 28 of the Statutes of 1960. The amending act, which received Royal Assent on July 7, 1960, extended the application of the Act for three years to the end of 1963 without change in the method of determining the amount of assistance payable to eligible gold-mine operators.

The Emergency Gold Mining Assistance Regulations established by Order in Council P.C. 1954-863 on June 10, 1954, as amended, were revoked and replaced by the Emergency Gold Mining Assistance Regulations made by Order in Council P.C. 1960-1162 on August 24, 1960.

The regulations were revised mainly for the purpose of consolidating and codifying certain administrative rules, particularly with respect to depreciation, pre-production expenses, and capital expenditures on exploration and development as costs of production of gold. Under the 1960 Regulations the amount of the maximum advance payment permitted on applications for assistance was increased from 80 to 90 per cent of the assistance payable.

An office consolidation of the Act and Regulations as amended was compiled in 1961 for general distribution.

The amount of assistance payable to the operator of a gold mine under the provisions of the Emergency Gold Mining Assistance Act is calculated by a formula consisting of two factors: the rate of assistance which is based on the cost per ounce of gold produced from the mine, and the assistance ounces which are a specified proportion of the total ounces of gold produced. The rate of assistance factor is determined by taking two-thirds of the amount by which the cost per ounce exceeds \$26.50, with a maximum rate of \$12.33 per ounce. The number of assistance ounces is two-thirds of the total gold produced and sold to the Royal Canadian Mint. The amount of assistance payable to an operator is computed by adding 25 per cent to the product obtained by multiplying the rate of assistance by the number of assistance ounces.

For purposes of the Act the cost of production of gold from a mine is the cost properly attributable to the gold produced from the mine during the year and includes mining, milling, smelting, refining, transportation, and administration costs and amounts for depreciation, amortization, pre-production costs, deferred development expenditures, and costs of exploration and development, as determined in accordance with the Regulations.

The operators of 40 lode gold mines and three placer gold mines submitted applications for assistance for the designated year 1961. Additional applications are expected from placer gold mine operators prior to June 30, 1962.

The estimated total assistance which will be payable on gold produced and sold under the provisions of the Act in 1961 is now estimated to be \$12,900,000. Advance payments of assistance up to March 31, 1962 for the designated year 1961 amounted to \$9,372,083.26. The balance on applications is payable after the operators' books of account have been audited by the Audit Services Division of the Office of the Comptroller of the Treasury.

A final audit for the year 1960 has not been completed on 11 applications. A total of \$12,098,885.46 in assistance has been paid on gold produced in 1960, and the payment of hold-backs will bring the final total to approximately \$12,290,000.

Two gold mines, which had received assistance payments in 1960, were ineligible in 1961 because their average cost of production per ounce of gold had dropped below \$26.50. During

the year, one gold mine commenced production and three terminated their operations. Thirteen operating lode gold mines were not eligible for assistance payments in 1961 because their cost per ounce of gold produced was less than \$26.50.

The weekly buying price for gold by the Royal Canadian Mint rose substantially during the year from \$34.82 in the first week in January to \$36.50 in the last week in December. The increase was greatest during the period of transition of the exchange value of the Canadian dollar from a premium to a discount in terms of United States funds following the budget of June 20, 1961. The lowest buying price during the year was \$34.45 during the week of March 6, and the highest was \$36.51 during the week of December 11. The lowest weekly Mint buying price in recent years was \$33.06 during the week of August 19, 1957. The annual average of the weekly Mint buying price was \$35.46 in 1961 compared with \$33.95 in 1960 and \$33.57 in 1959.

Conditions Governing Eligibility for Assistance

A mine, to be classified as a gold mine for purposes of the Act and Regulations, must fulfil the following conditions:

1. The value of the gold produced must be 70 per cent or more of the total value of the output of the mine.
2. The mine or operation must produce at least 50 troy ounces of gold in a designated year.
3. Ore reserves of commercial significance must be developed and there must be a possibility of attaining production of gold on a commercial basis within a reasonable time.

The operator must also conform to the following requirements to be eligible for assistance payments:

1. Application in prescribed form for assistance payments for a designated quarter or year must be received by the Department of Mines and Technical Surveys within six months after the end of the designated period. Advance payments may be made for a calendar year or for quarterly periods beginning with the first day of the months of January, April, July or October. Schedules I and II are to be used in making application for assistance.
2. The cost of production per ounce of gold, computed on all ounces of gold produced from the mine during the designated period, must exceed \$26.50.
3. Assistance payments are made only for those ounces of gold produced from the mine during the designated period which are:
 - (a) sold in the form of bullion to the Royal Canadian Mint by the operator; or
 - (b) sold in the form of ore or concentrate to a domestic smelter, provided the smelter operator certifies that a number of ounces equivalent to those paid for by the smelter have been sold to the Royal Canadian Mint as soon as is practicable after the shipment of the ore or concentrate and the separation of the gold therefrom; or
 - (c) exported and sold in the form of ore or concentrate to a foreign smelter.
4. The operator of a mine applying for assistance for the first time must submit a declaration of ownership of the mine on Schedule III.
5. A new mine which is operated by an incorporated company must be declared in production in accordance with Section 83(5) of the Income Tax Act. Status as a new mine may be obtained through application to the Taxation Division, Department of National Revenue, Ottawa.

The Gold Export Act and Disposal of Canadian Gold

The Gold Export Act, passed in 1932, authorized the Governor in Council to make regulations regarding the export of gold from Canada. On March 21, 1956, the regulations, which prohibited the export in any form except under licence issued by the Minister of Finance, were revoked. Thus, since March 1956, producers have been free to sell their gold wherever they desire.

Administration

The Act is administered under the direction of the Deputy Minister by a senior officer of the Mineral Resources Division, Department of Mines and Technical Surveys. Inspection engineers annually visit each mine or operation receiving assistance for the purpose of ascertaining the exploration and development expenditures which will be classified as capital expenditures for inclusion in allowable costs on a deferred basis, and for reporting upon the operations conducted at the mine insofar as they affect the payment of assistance.

Assistance applications are generally submitted at the end of each quarter. If found to be complete and in accordance with the Act and the Regulations, they are approved and an advance payment is forwarded to the operator. The Regulations provide that the advance payment shall not exceed 90 per cent of the allowable assistance payable under the application. When the final audit of the books of account has been completed and the audit deletions and additions have been made, the remaining holdback is approved for payment.

The Department has received the proficient assistance and co-operation of the Audit Services Division of the Office of the Comptroller of the Treasury in the examination of applications and in the verification of information received by an audit of the books of account of the operators.

Act and Amendments

1. The Act received Royal Assent on May 14, 1948, and came into force by proclamation on June 15, 1948.
2. Chapter 20, 13 George VI (second session), received Royal Assent, December 10, 1949.
3. Chapter 49, 15 George VI (first session), received Royal Assent, June 30, 1951.
4. Chapter 25, 1 Elizabeth II, received Royal Assent, June 18, 1952.
5. Chapter 32, 2 Elizabeth II, received Royal Assent, May 14, 1953.
6. Chapter 26, 2-3 Elizabeth II, received Royal Assent, March 31, 1954.
7. Chapter 19, 3-4 Elizabeth II, received Royal Assent, May 26, 1955.
8. Chapter 20, 4-5 Elizabeth II, received Royal Assent, June 26, 1956.
9. Chapter 28, 7 Elizabeth II, received Royal Assent, September 6, 1958.
10. Chapter 28, 8-9 Elizabeth II, received Royal Assent, July 7, 1960.

Regulations and Amendments

1. The Regulations made by the Governor in Council under the authority of Section 6 of the Act were approved by Order in Council, P.C. 2644, June 11, 1948.
2. Order in Council, P.C. 1753, April 12, 1950.
3. Order in Council, P.C. 3925, July 31, 1951.
4. Order in Council, P.C. 1954-379, March 19, 1954.
5. Order in Council, P.C. 1954-863, June 10, 1954.
6. Order in Council, P.C. 1956-11, January 5, 1956.
7. Order in Council, P.C. 1960-1162, August 24, 1960.

TABLE 11. Emergency Gold Mining Assistance Act—Estimated Assistance Payable

Province	1954	1955	1956	1957	1958	1959	1960	1961
	dollars							
Nova Scotia	—	—	—	—	1,085	—	—	—
Quebec	4,161,889	2,510,421	2,554,961	2,802,638	3,111,036	3,027,080	3,053,976	2,994,138
Ontario	8,700,203	4,532,956	4,569,086	5,430,897	6,565,596	7,814,793	8,732,757	8,992,909
Manitoba	580,741	654,801	722,087	712,029	463,210	217,106	209,028	250,177
British Columbia	1,036,678	600,710	605,950	397,774	658,035	715,582	445,733	174,507
Northwest Territories	1,411,829	330,532	14,013	284,030	435,520	37,656	—	—
Yukon	367,839	255,959	201,138	52,385	185,982	179,797	51,325	21,924
Canada	16,259,179	8,885,479	8,667,235	9,679,753	11,420,464	11,992,014	12,492,819	12,433,655

THE PLACER GOLD MINING INDUSTRY

This portion of the report includes statistics for industry 051—Placer Gold Mines of the Standard Industrial Classification Manual (Catalogue No. 12-501).

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

In 1961 a total of 69,240 troy ounces of fine gold were recovered from crude gold obtained from Canadian alluvial deposits. This represented a decrease of 14.3 per cent from the preceding year. Reviewing the past twenty five 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 and 39 ounces in 1952, none in 1953, 16 ounces in 1954, nil in 1955-1960 and 478 ounces in 1961.

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 to prospectors of no fixed abode who, in many instances, market their recoveries through local merchants and banks. Recoveries in 1961 were made chiefly from deposits located in the Atlin and Cariboo districts. Output was estimated at 2,484 troy ounces.

Yukon—Over 95 per cent of the placer gold recovered in Canada during 1961 was found in the creeks of the Yukon. Production in 1961 totalled 66,107 troy ounces.

Employees in the industry numbered 243 persons to whom \$1,326,147 were paid in wages and salaries. Fuel and electricity cost \$108,452 electricity generated for own use was 14,237,470 kwh. and the electricity for sale was 7,618,520 kwh. Process supplies were valued at \$47,822. Freight and express on shipments amounted to \$28,042 and \$26,749 were paid for treatment and marketing.

TABLE 12. Principal Statistics for Placer Gold Mining, Significant Years, 1921-61

Basis: Standard Industrial Classification revised 1960

Year	Establishments	Employees	Salaries and wages	Cost of fuel and electricity	Process supplies and containers	Gross value of products	Net value of production ¹
	number		dollars				
1921	197	428	671,783	..	..	1,576,222	..
1929	68	488	586,193	2,969	..	836,006	..
1931	109	337	682,935	41,745	..	1,226,541	..
1933	74	454	704,151	35,165	..	1,218,250	..
1937	109	1,069	1,689,911	99,072	77,488	3,243,196	3,066,636
1939	104	830	1,439,765	119,692	90,610	4,523,587	4,204,974
1941	110	797	1,954,278	155,516	68,489	4,132,503	3,800,142
1944	47	211	598,556	43,591	13,703	1,281,125	1,197,021
1946	39	340	1,112,984	84,206	46,870	1,849,511	1,693,568
1949	56	398	1,509,423	88,614	455,371	3,499,823	2,920,290
1951	47	362	1,553,103	44,678	507,830	3,572,516	2,951,342
1954	62	351	1,619,480	146,300	253,128	3,051,665	2,575,038
1957	57	243	1,180,225	55,472	353,186	2,573,853	2,118,716
1958	112	236	1,253,362	63,007	461,375	3,049,743	2,484,524
1959	112	239	1,194,713	74,536	355,837	2,462,727	1,989,431
1960	32	213	1,224,907	77,498	344,379	2,758,284	2,285,126
1961	47	243	1,326,147	108,452	47,822	2,465,811	2,254,746

¹ Gross value less fuel, electricity, process supplies, freight and treatment charges.TABLE 13. Alluvial Gold Recovered and Quantity of Material Handled,¹ 1952-61

Year	British Columbia				Yukon				Canada
	Material handled ²	Gold recovered ³	Ounces per cu. yd.	Value per cu. yd.	Material handled ²	Gold recovered ³	Ounces per cu. yd.	Value per cu. yd.	Gold recovered ³
	cu. yd.	fine ounces		\$	cu. yd.	fine ounces		\$	ounces
1952	270,656	7,950	0.0294	1.0075	6,727,353	92,789	0.0138	0.4729	92,843
1953	597,073	11,360	0.0199	0.6850	5,155,826	66,080	0.0140	0.4832	77,505
1954	233,114	7,105	0.0305	1.0390	6,889,820	82,208	0.0119	0.4065	89,571
1955	110,594	6,206	0.0561	1.9365	6,379,755	72,201	0.0113	0.3907	78,621
1956 .....	..	2,962	...	...	5,716,389	71,736	0.0125	0.4306	74,919
1957 .....	..	2,105	...	...	7,559,882	73,709	0.0097	0.3271	76,303
1958 .....	..	3,928	...	...	6,808,991	67,745	0.0099	0.3380	71,955
1959 .....	..	5,814	...	...	6,824,062	66,960	0.0098	0.3294	72,974
1960 .....	..	2,498	...	...	5,519,729	78,115	0.0141	0.4787	80,804
1961 .....	..	2,484	...	...	4,672,554	66,107	0.0141	0.5018	69,240

¹ In addition, relatively small amounts of alluvial gold have been recovered in Quebec, Saskatchewan and Alberta but complete data are not available; also, data relating to material handled, particularly those pertaining to small operations, are not complete and necessitate estimates in order to obtain totals.² Data partly conjectural and includes some overburden and barren material.³ Fine gold received at Royal Canadian Mint (Vancouver Assay Office).

TABLE 14. Employees and their Earnings in the Placer Gold Mining Industry, 1956-61

Year	Employees ¹					Man-hours worked	Earnings		
	Administration		Workmen		Total		Admin- istration	Workmen	Total
	Male	Female	Male	Female					
	number						dollars		
1956	13	—	227	10	250	688,681	58,860	1,319,306	1,378,166
1957	14	6	218	5	243	661,202	92,833	1,087,392	1,180,225
1958	16	5	212	5	236	859,577	123,329	1,130,033	1,253,362
1959	20	5	211	3	239	621,299	114,224	1,080,489	1,194,713
1960	9	5	196	3	213	567,383	93,773	1,131,134	1,224,907
1961	18	6	214	5	243	646,618	156,352	1,169,795	1,326,147

¹ Several placer deposits are operated by partnerships which have no employees.

TABLE 15. Fuel and Electricity Used in the Placer Gold Mining Industry, 1961

Kind	Quantity	Cost at plant
		\$
Bituminous coal (a) From Canadian mines..... short ton	48	763
(b) Imported	—	—
Sub-bituminous coal (from Alberta Mines only)	—	—
Anthracite coal.....	—	—
Lignite coal	—	—
Coke (for fuel only)	—	—
Gasoline, (includes gasoline used in cars and trucks)	Imp. gal. 48,742	21,857
Kerosene or coal oil	" 310	282
Fuel oil	" 182,866	58,158
Wood (cords of 128 cubic feet piled wood).....	cord 558	13,921
Gas (a) Liquefied petroleum gases (propane, etc.).....	Imp. gal. 1,700	1,672
(b) Other manufactured gas	—	—
(c) Natural gas	—	—
Other fuel .....	... 84	84
Electricity purchased for power and lighting.....	kwh. 815,094	11,715
Electricity purchased for other purposes	—	—
Total .....	... 108,452	108,452
Electricity generated (a) For own use	kwh. 14,237,470	...
(b) For sale.....	" 7,618,520	113,790

THE GOLD QUARTZ MINING INDUSTRY IN CANADA

This report includes statistics for industry 052—Gold Quartz Mines of the Standard Industrial Classification Manual (Catalogue No. 12-501).

The gold quartz mining industry produced, during 1961 minerals valued at \$135,033,500 compared with \$135,349,183 in the preceding year. The total valuation included gold, silver, copper and other recoverable metals found in the gold ores.

The average number of employees was 15,876 whose earnings amounted to \$65,465,515. Fuel cost \$1,367,627 and 917,820,634 kwh. of electricity were purchased for \$5,957,395. Process supplies, which included explosives, chemicals, drill steel, etc., cost \$19,396,214. Electricity generated for own use was 35,370,373 kwh. and generated for sale was 1,359,220 kwh.

The greater part of Canada's gold comes from the Canadian Shield, an immense area of precambrian rocks, extending from the Labrador Coast westward almost to the mouth of the Mackenzie River. The area of the Shield is roughly 1,825,000 square miles, almost half of Canada. The deposits of the Shield are of two main types, namely, quartz veins, from which most of the gold, up to the present time, has been won, and sulphide deposits which produce a smaller but very considerable proportion. The second great source of gold in Canada has been the Western or Cordilleran section, comprising British Columbia and the Yukon Territory, the gold production from this section including relatively large quantities obtained from alluvial deposits. In Nova Scotia gold was mined as early as 1862 but in late years the production in this province has dwindled to insignificance.

TABLE 16. Principal Statistics for the Gold Quartz Mining Industry, Significant Years, 1921-61

Basis: Standard Industrial Classification revised 1960

	Establishments	Employees	Salaries and wages	Cost of fuel and electricity	Cost of process supplies	Gross value of products	Net value added by processing ¹
	number				dollars		
1921	59	3,889	6,072,318	1,154,606	..	16,689,784	..
1929	85	8,660	14,258,733	2,579,481	..	37,275,986	..
1931	69	9,636	16,467,165	2,700,326	..	49,144,578	..
1933	216	12,823	20,536,012	3,330,137	..	69,151,535	..
1937	689	29,140	48,219,318	7,345,401	16,230,722	122,676,103	97,961,278
1939	474	30,622	53,206,225	7,952,580	19,484,870	160,014,172	129,633,245
1941	357	32,551	62,150,810	8,462,618	21,066,900	179,103,182	145,978,833
1944	262	17,226	37,023,505	5,895,117	11,174,746	94,263,416	75,234,384
1946	686	21,973	47,211,062	6,259,876	14,401,904	88,422,683	66,342,152
1949	247	22,358	61,293,334	7,307,153	23,251,874	129,550,461	96,580,304
1951	211	22,126	68,739,531	7,791,586	26,677,361	136,703,452	100,059,503
1954	157	18,479	63,578,156	6,987,528	23,639,788	127,644,959	95,627,104
1957	147	16,911	63,708,608	6,771,886	22,705,425	127,055,902	95,991,241
1958	127	16,811	64,208,042	7,134,399	18,013,121	133,998,004	107,140,993
1959	139	16,777	65,519,112	7,161,054	20,901,136	130,097,538	100,519,397
1960	146	16,542	66,552,906	7,216,027	22,686,326	135,349,183	103,748,507
1961	140	15,876	65,465,515	7,360,085	19,396,214	135,033,500	106,879,129

¹ Gross value less fuel, electricity, process supplies, freight and treatment charges.

TABLE 17. Principal Statistics for the Gold Quartz Mining Industry, 1960 and 1961

Basis: Standard Industrial Classification revised 1960

	Active opera- tors ¹	Em- ployees	Salaries and wages	Cost of fuel and purchased electricity	Cost of process supplies used ²	Amount of freight etc., paid on ship- ments of ore, slag, etc.	Smelter and refinery treatment costs	Gross value of bullion, ore, concen- trates or residues shipped from mines ^{3,4}	Net value of bullion, ore, concentrates or residues shipped from mines ⁵
	number		dollars						
1960									
Quebec and Nova Scotia	74	3,098	12,018,407	1,493,073	3,938,850	129,335	455,037	22,094,466	16,078,171
Ontario	48	11,824	46,368,228	4,438,198	16,449,845	110,507	628,119	91,508,838	69,882,169
Manitoba and Saskatchewan	3	228	825,509	111,453	187,291	2,340	8,109	1,066,658	757,465
British Columbia	12	659	3,031,375	259,833	777,182	164,700	99,556	6,268,298	4,967,027
Northwest Territories and Yukon	9	733	4,309,387	913,470	1,333,158	45,698	54,922	14,410,923	12,063,675
Totals	146	16,542	66,552,906	7,216,027	22,886,326	452,580	1,245,743	135,349,183	103,748,507
1961									
Quebec and Nova Scotia	63	3,011	11,617,795	1,365,040	3,898,132	102,010	387,540	22,532,314	16,779,592
Ontario	56	11,403	46,170,029	4,643,114	13,736,874	105,557	553,538	91,976,712	72,937,629
Manitoba and Saskatchewan	5	238	902,832	112,081	278,557	2,977	9,135	1,134,224	731,474
British Columbia	9	490	2,448,551	211,746	377,061	89,516	66,785	4,804,108	4,059,000
Northwest Territories	7	734	4,326,308	1,028,104	1,105,590	37,308	43,706	14,586,142	12,371,434
Totals	140	15,876	65,465,515	7,360,065	19,396,214	337,368	1,060,704	135,033,500	106,879,129

¹ Producing mines; in 1960, 69, in 1961, 60.² Explosives, chemicals, etc.³ In 1960; value of bullion produced, plus value of ore, concentrates, etc. shipped.⁴ In 1961; value of bullion shipped plus value of ore, concentrates, etc., shipped.⁵ Gross value less cost of supplies, fuel and electricity, treatment costs and freight.

TABLE 18. Ores Mined and Treated by the Gold Quartz Mining Industry, 1952-61

Year	Ore hoisted	Ore milled ¹	Crude ore shipped to smelters ²	Low-grade sorted out	Tailings re-treated	Gold in recovered as bullion	Gold in crude ore shipped	Gold in concentrates slag, etc. shipped
			tons			troy ounces		
1952	16,496,218	15,991,130	307,464	145,999	312	3,709,717	41,943	72,285
1953	15,247,337	14,842,517	198,535	233,813	800	3,412,964	28,105	76,422
1954	16,178,273	15,560,138	285,697	271,642	—	3,610,496	44,336	74,808
1955	16,404,660	15,660,528	333,783	221,077	634	3,764,817	50,516	58,343
1956	14,589,230	14,070,420	276,130	195,257	2,176	3,635,709	45,561	23,725
1957	14,354,879	13,894,311	253,607	215,397	1,212	3,695,666	43,601	26,712
1958	14,751,991	14,223,343	273,204	175,069	465	3,829,460	40,516	51,499
1959	14,246,860	13,732,277	347,203	188,996	329	3,763,954	45,812	40,391
1960	14,726,094	14,167,243	281,077	262,990	276	3,837,743	49,105	50,364
1961	14,353,022	13,835,364	268,690	270,098	332	3,692,596	40,145	33,627

^{1,2} = Total crude ore treated.

TABLE 19. Ores Mined and Milled, Crude Bullion Recovered and Crude Bullion and Concentrates Shipped, in the Gold Quartz Mining Industry, 1961

	Quebec, Nova Scotia	Ontario	Manitoba	British Columbia	Northwest Territories	Canada
Number of producing mines	13	33	2	7	5	60
Ore mined	ton	4,182,904	9,076,759	149,885	200,943	14,353,022
Material discarded (sorted)	"	39,221	99,888	—	1,567	270,098
Ore milled (ground, etc.)	"	3,873,579	9,004,518	149,942	194,216	13,835,364
Tailings re-treated	"	—	332	—	—	332
Gold content of ores, slags, residues and concentrates shipped:						
To foreign smelters	troy ounce	—	—	—	16,936	22,138
To Canadian smelters or mills	"	35,151	10,413	434	5,636	51,634
Bullion bars produced:						
Gold content	"	591,327	2,553,726	31,025	112,105	3,692,596
Silver content	"	118,263	395,824	5,382	19,094	615,450
Content of bullion bars shipped:						
Gold	"	596,336	2,559,035	31,025	112,105	3,700,773
Silver	"	118,985	397,730	5,382	19,094	617,911
Gold value	\$	21,160,672	90,922,573	1,102,599	4,008,260	131,530,289
Silver value	\$	112,037	372,857	5,103	17,874	579,817
Value of ores, concentrates, slags and residues sold (shipped)	\$	1,259,605	378,254	15,410	777,974	2,609,254
Other operating revenues	\$	—	303,028	11,112	—	314,140
Gross value of shipments, etc.	\$	22,532,314	91,976,712	1,134,224	4,804,108	135,033,500
Value of fuel, electricity and process supplies used, also freight on shipments, marketing, smelter and refinery charges	\$	5,752,722	19,039,083	402,750	745,108	28,154,371
Net value added by processing	\$	16,779,592	72,937,629	731,474	4,059,000	106,879,129

TABLE 20. Ores, Concentrates, Slags, etc., Shipped to Smelters and Mills from Canadian Gold Mines, 1952-61

Year	Ores		Concentrates		Slags, residues, precipitates	
	Tons	Gold content-troy ounces	Tons	Gold content-troy ounces	Tons	Gold content-troy ounces
To Canadian plants						
1952	298,207	41,908	20	241	91	4,427
1953	198,535	28,068	20	227	123	9,300
1954	282,331	44,276	—	—	404	8,647
1955	333,783	50,516	—	—	237	4,816
1956	276,130	45,561	28	379	294	8,566
1957	253,602	43,589	10	129	187	6,791
1958	267,309	40,516	2,583	18,883	290	9,109
1959	347,203	46,812	1,398	10,215	232	8,993
1960	280,005	42,913	1,353	9,572	176	8,561
1961	268,690	40,145	55	180	348	11,309
To foreign plants						
1952	1	35	9,125	24,085	20	43,532
1953	3	37	143	16,468	20	50,427
1954	2	60	2,938	14,931	22	51,230
1955	—	—	2,807	14,876	17	38,651
1956	—	—	2,388	14,655	12	125
1957	5	12	2,636	19,792	—	—
1958	—	—	3,009	23,305	13	202
1959	—	—	2,668	21,183	—	—
1960	1,072	6,192	3,409	27,662	62	3,835
1961	—	—	2,359	16,220	106	5,918

TABLE 21. Shipments from Gold Quartz Mines, 1960 and 1961

	Quantity	Total gross metal content			
		Gold	Silver	Copper	Other ¹
	tons	ounces		pounds	
1960					
To Canadian smelters:					
Gold ore	280,005	42,913	41,875	—	106,382
Gold concentrates	45	330	43	130	—
Slags, precipitates, residues	176	8,561	8,026	2,956	1,323
Copper concentrates	1,308	9,242	9,332	827,296	—
To foreign smelters:					
Gold ore	1,072	6,132	169,439	14,860	167,717
Gold concentrates	3,409	27,662	7,960	—	—
Slags, precipitates, residues	62	4,569	3,835	—	—
Totals	286,077	99,469	240,510	845,242	275,422
1961					
To Canadian smelters:					
Gold ore	268,690	40,145	6,732	23	81,297
Gold concentrates	55	180	36	145	—
Slags, precipitates, residues	348	11,309	13,482	1,241	—
To foreign smelters:					
Gold ore	—	—	—	—	—
Gold concentrates	2,359	16,220	6,895	—	—
Slags, precipitates, residues	106	5,918	1,336	—	—
Totals	271,558	73,772	28,481	1,409	81,297

¹ Zinc.

TABLE 22. Gold and Silver Content of Bullion Produced, of Ores, Concentrates, etc., Shipped, with Average Grade of Ore Shipped and Ore Milled at Gold Quartz Mines and the Average Price of Gold and Silver in Canadian Funds, 1952-61

Year	Tonnage treated ^{1,2}	Gold content ³	Silver content ³	Ounces of fine gold per ton	Ounces of fine silver per ton	Average price of gold	Average price of silver
		fine ounces				\$ per oz.	
1952	16,289,337	3,823,747	688,489	.23	.04	34.27	0.835
1953	15,041,261	3,509,527	620,146	.23	.04	34.42	0.840
1954	15,842,471	3,729,640	660,259	.24	.04	34.07	0.832
1955	15,997,372	3,873,676	652,589	.24	.04	34.52	0.882
1956	14,349,272	3,704,995	623,995	.26	.04	34.45	0.897
1957	14,147,918	3,766,124	643,146	.27	.05	33.55	0.874
1958	14,490,652	3,921,475	707,794	.27	.05	33.98	0.868
1959	14,079,480	3,851,157	629,465	.27	.04	33.57	0.878
1960	14,448,320	3,937,212	887,697	.27	.06	33.95	0.889
1961	14,104,054	3,766,368	643,931	.27	.05	35.46	0.943

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 23. Milling Capacity of Operating Canadian Gold Mines, 1952-61

Year	Nova Scotia	Quebec	Ontario	Manitoba	British Columbia	Northwest Territories	Canada
	tons of 2,000 pounds per 24 hours						
1952	—	13,600	33,099	2,550	1,650	1,380	52,279
1953	—	13,200	31,268	2,550	1,675	1,210	49,903
1954	—	12,650	29,168	2,550	1,700	1,375	47,443
1955	—	12,650	29,423	2,550	1,525	1,375	47,533
1956	48	12,000	27,778	2,550	1,200	1,500	45,076
1957	—	9,530	27,358	2,550	1,204	1,500	42,142
1958	—	10,500	27,292	2,550	1,264	1,500	43,106
1959	—	10,100	28,057	550	1,275	1,650	41,632
1960	—	9,650	28,035	550	1,229	1,661	41,125
1961	—	10,150	27,602	550	850	1,681	40,833

TABLE 24. Employees and Earnings in the Gold Quartz Mining Industry, 1957-61

Year	Employees					Man-hours worked (all employees)	Earnings		
	Administrative and office		Workmen		Total		Administrative and office	Workmen	Total
	Male	Female	Male	Female					
	number						dollars		
1957	1,601	158	15,066	86	16,911	36,996,927	8,975,888	54,732,792	63,708,880
1958	1,623	153	14,952	83	16,811	36,646,723	9,362,346	54,845,696	64,208,042
1959	1,658	152	14,884	83	16,777	36,320,320	9,808,239	55,710,873	65,519,112
1960	1,653	153	14,677	59	16,542	36,157,872	9,929,000	56,623,906	66,552,906
1961	1,702	141	13,966	67	15,876	34,342,805	10,548,850	54,916,665	65,465,515

TABLE 25. Number of Workmen, by Months in the Gold Mining Industry, 1960 and 1961

Month	1960	1961				
	Total	Mine			Mill	Total
		Surface		Underground	Male	
		Male	Female	Male		
January	14,855	3,442	68	9,587	1,225	14,322
February	14,851	3,444	67	9,540	1,219	14,270
March	14,796	3,447	65	9,495	1,223	14,230
April	14,614	3,394	70	9,486	1,222	14,172
May	14,805	3,429	69	9,481	1,235	14,214
June	15,087	3,501	69	9,439	1,272	14,281
July	15,009	3,548	68	9,426	1,247	14,289
August	14,823	3,485	68	9,319	1,243	14,115
September	14,597	3,283	60	9,149	1,207	13,699
October	14,482	3,241	62	9,185	1,180	13,668
November	14,451	3,182	60	9,185	1,166	13,593
December	14,336	3,148	60	9,114	1,164	13,486
Averages	14,736	3,397	67	9,354	1,215	14,035
Min-hours worked	32,240,020					30,389,798

TABLE 26. Fuel and Electricity Used in the Gold Quartz Mining Industry, 1961

Kind	Quantity	Cost at plant
		\$
Bituminous coal (a) From Canadian mines.....	short ton 1,078	18,200
(b) Imported	" 11,197	181,982
Sub-bituminous coal (from Alberta mines only)	" 39	1,139
Anthracite coal.....	" 628	11,159
Lignite coal	—	—
Coke (for fuel only)	short ton 5	157
Gasoline, (includes gasoline used in cars and trucks)	Imp. gal. 371,121	152,190
Kerosene or coal oil	" 11,438	3,507
Fuel oil and diesel fuel	" 3,426,542	712,286
Wood (cords of 128 cubic feet of piled wood)	cord 5,066	66,894
Gas (a) Liquefied petroleum gases (propane, etc.)	Imp. gal. 5,158	3,561
(b) Other manufactured gas	—	—
(c) Natural gas	M. cu. ft. 1,029,269	124,744
Other fuel (shavings, sawdust etc.) .....	...	91,808
Electricity purchased for power and lighting	kwh. 907,097,248	5,957,395
Electricity purchased for other purposes	" 10,723,386	35,063
Total (cost only) .....	...	7,360,085
Electricity generated (a) For own use	kwh. 35,370,373	...
(b) For sale	" 1,359,220	41,797

TABLE 27. Cost of Prospecting Conducted by Canadian Gold Quartz Mining Companies, 1960 and 1961

Province in which prospecting was conducted ¹	By Nova Scotia and Quebec companies ²	By Ontario companies ²	By Manitoba and Saskatchewan companies ²	By British Columbia companies ²	By Yukon and Northwest Territories companies	Total
	dollars					
1960						
Newfoundland	27,891	201	—	—	—	28,092
Nova Scotia	1,032	90,671	—	—	—	91,703
New Brunswick	133,323	153,289	—	—	—	286,612
Quebec	1,258,602	263,408	—	—	3,237	1,525,247
Ontario	107,956	795,129	3,711	7,753	—	914,549
Manitoba	—	30,486	40,024	—	177,721	248,231
Saskatchewan	—	2,364	—	—	—	2,364
British Columbia	42,427	71,687	—	114,710	—	228,824
Northwest Territories	730	32,058	—	—	449,151	481,939
Yukon	—	6,980	—	—	—	6,980
Totals	1,571,961	1,446,273	43,735	122,463	630,109	3,814,541
1961						
Newfoundland	—	7,794	—	—	—	7,794
Nova Scotia	914	12,083	—	—	—	12,997
New Brunswick	11,911	40,068	—	3,616	—	55,595
Quebec	713,104	587,008	—	—	—	1,300,112
Ontario	87,286	1,070,229	1,643	5,296	—	1,164,454
Manitoba	33,489	70,101	43,362	—	468,177	615,129
Saskatchewan	26,568	41,686	3,500	—	—	71,754
British Columbia	3,681	190,973	—	68,349	—	263,003
Northwest Territories	154,241	3,788	—	—	4,454	162,483
Yukon	—	10,099	—	—	—	10,099
Totals	1,031,194	2,033,829	48,505	77,261	472,631	3,663,420

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 28. Drilling Completed on Gold Quartz Deposits, 1959-61

	Footage drilled ¹		
	1959	1960	1961
Diamond drilling for exploration (testing):			
By companies with their own equipment and personnel	524,701	415,721	552,128
By contractors	1,271,824	1,610,415	1,380,785
Other drilling:			
Diamond drilling for breaking rock or ore:			
By companies with their own equipment and personnel	22,570	16,445	6,161
By contractors	12,139	17,838	13,619
Drilling by percussion and other machines ²	35,508,818	38,161,529	36,632,554

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 1960 totalled \$231,368 and in 1961—\$259,838.

TABLE 29. Specified Taxes Paid by Active Canadian Gold Quartz Mines, 1960 and 1961 by Provinces¹

Nature of tax	Nova Scotia and Quebec	Ontario	Manitoba and Saskatchewan	British Columbia	Northwest Territories	Canada
	dollars					
1960						
Dominion income tax, including tax on non-operating revenue	90,673	2,963,737	—	—	347,000	3,401,410
Provincial tax	197,824	2,044,876	—	18,124	116,639	2,377,463
Municipal tax	259,736	382,960	—	15,045	87,619	745,360
Totals	548,233	5,391,573	—	33,169	551,258	6,524,233
1961						
Dominion income tax, including tax on non-operating revenue	128,320	3,299,772	—	—	216,000	3,644,092
Provincial tax	192,235	2,189,191	—	22,874	103,630	2,507,930
Municipal tax	268,443	420,617	—	15,560	147,418	852,038
Totals	588,998	5,909,580	—	38,434	467,048	7,004,060

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

TABLE 30. Certain Specified Expenditures Made by Gold Quartz Mining Companies, 1961

	1961
	\$
(a) Workers' compensation	2,535,523
(b) Silicosis assessment	1,637,852
(c) Unemployment insurance	639,095
(d) Aggregate cost of structures, roads, machinery, equipment, etc., built by or purchased from outside contractors or suppliers and chargeable to Fixed Assets Account	3,117,358
(e) Book value of fixed assets (new structures, roads, machinery, equipment, etc., including major repairs and alterations) produced by own employees and chargeable to Fixed Assets Account	1,741,261
(f) Other capital expenditures not reported in (d) and (e)	1,314,634
(g) Cost of materials and supplies used in the production of machinery and equipment and in the construction of roads and new structures (including major repairs and alterations by own employees and chargeable to Fixed Assets Account)	2,825,105
(h) Cost of all other goods, materials and supplies (including office, medical, laboratory, cafeteria and store supplies) purchased and not chargeable to Fixed Assets Account	32,424,488

TABLE 31. Estimated Capital and Repair Expenditures, 1959-63

Year	Capital expenditures			Repair expenditures			Capital and repair expenditures		
	Construction	Machinery	Total	Construction	Machinery	Total	Construction	Machinery	Total
	thousands of dollars								
1959	4,556	4,245	8,801	1,456	7,691	9,147	6,012	11,936	17,948
1960	6,388	2,804	9,192	1,500	7,288	8,788	7,888	10,092	17,980
1961	5,746	2,495	8,241	1,149	8,079	9,228	6,895	10,574	17,469
1962 ¹	2,774	2,368	5,142	1,193	8,080	9,273	3,967	10,448	14,415
1963 ²	2,892	2,036	4,928	1,229	8,175	9,404	4,121	10,211	14,332

¹ Preliminary estimates.² Reported intentions.

Source: Private and Public Investment in Canada, Outlook, 1963.

THE COPPER-GOLD-SILVER MINING INDUSTRY

This portion of the report includes statistics for industry 053 - Copper-Gold-Silver mines of the Standard Industrial Classification Manual (Catalogue No. 12-501).

During 1961 the gross value of crude ore, concentrates, etc., shipped from the mines and mills in this industry to smelters was estimated at \$175,463,232. Fuel cost \$1,418,135 and 665,530,402 kwh. of electricity was purchased for \$4,513,871. Process supplies, freight and treatment charges amounted to \$60,483,260. Employees numbered 10,901 to whom \$51,459,158 were distributed as salaries and wages. There were 48 producers or shippers in 1961.

During the year "copper-gold-silver" mines operated in Newfoundland, 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.

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 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 smelting and refining industry.

TABLE 32. Principal Statistics¹ of the Copper-Gold-Silver Mining Industry, Significant Year, 1921-61

Basis: Standard Industrial Classification revised 1960

Year	Establishments	Employees	Salaries and wages	Cost of fuel and electricity	Process supplies and containers	Gross value of products	Net value added ²
	number				dollars		
1921	18	1,222	1,573,221	177,052	..	2,589,314	..
1929	152	5,243	8,498,755	1,035,133	..	21,859,907	..
1931	56	3,351	4,958,317	726,502	..	15,951,103	..
1933	29	2,841	3,938,778	404,625	..	7,707,270	..
1937	38	5,164	8,240,614	901,088	4,851,845	40,735,801	24,902,851
1939	30	6,083	9,920,591	1,223,523	5,585,616	51,161,468	26,182,577
1941	22	5,866	10,695,023	1,264,567	5,505,955	64,829,073	30,220,331
1944	26	5,175	10,710,071	1,402,243	5,170,581	62,389,815	38,198,039
1946	43	4,958	10,243,487	1,152,925	4,022,508	54,304,549	37,433,982
1949	33	7,395	21,776,150	1,630,715	7,499,445	105,994,498	74,591,660
1951	82	6,223	21,545,660	2,085,608	8,257,819	123,162,228	92,331,995
1954	118	7,837	29,791,332	3,148,808	10,232,701	105,893,976	70,814,052
1957	261	10,359	45,622,452	4,942,600	15,297,346	119,013,141	68,694,057
1958	244	8,875	39,745,243	4,428,653	15,968,361	133,778,148	77,993,264
1959	310	9,682	43,460,641	4,961,920	12,948,618	147,752,990	90,660,009
1960	277	10,549	48,940,982	6,546,557	17,989,123	172,254,034	103,754,336
1961	276	10,901	51,459,158	5,932,106	14,709,403	175,463,232	109,047,300

¹ Value of ores and concentrates shipped from mines to smelters operated by the same companies are often of a nominal or conjectural nature.² Gross value less fuel, electricity, process supplies, freight and treatment charges.

TABLE 33. Shipments from Copper-Gold-Silver Mines, 1960 and 1961

	Quantity	Value	Total metal content as determined by settlement assay ¹				
			Gold	Silver	Copper	Sulphur	Zinc
	tons	\$	fine ounces		lb.	tons	lb.
1960							
To Canadian plants:							
Ores	639,242	8,446,503	65,029	159,488	22,208,047	—	158,388
Copper concentrates	1,204,783	123,335,170	390,294	5,424,153	458,119,867	—	28,007,356
Zinc	129,096	8,017,942	6,970	198,885	2,407,701	—	118,938,533
Iron pyrite concentrates	275,649	973,523	—	—	—	130,245	—
Slags and tailings	58,783	48,264	92	6,846	—	—	—
Residues, bullion and gold precipitates ..	16	957,064	26,814	44,904	1,832	—	—
To foreign plants:							
Ores and tailings	67	24,831	538	235	18,218	—	—
Copper concentrates	64,122	10,395,024	23,364	229,422	32,946,390	—	—
Zinc concentrates	138,713	18,770,338	1,177	7,931	—	—	148,343,736
Iron pyrite concentrates	308,506	954,275	—	—	—	152,626	—
Precipitates	406	107,450	—	—	377,872	—	—
Lead concentrates	2,030	223,650	1,814	112,803	51,182	2,183,853 ²	175,222
Totals	2,821,413	172,254,034	516,092	6,184,667	516,131,109	282,871	295,623,235
Value of process supplies, etc. ³ .....	...	68,499,418	...	...	...	...	...
Net value added .....	...	103,754,616	...	...	...	...	...
1961							
To Canadian plants:							
Ores	651,785	8,507,823	77,429	169,691	22,889,850	—	416,384
Copper concentrates	1,173,648	124,580,529	387,950	5,083,220	417,966,437	—	22,741,379
Zinc concentrates	147,685	9,746,210	8,372	271,287	3,124,522	—	143,770,245
Iron pyrite concentrates	198,056	798,021	—	—	—	95,201	—
Slags, residues, bullion and gold precipitates	31	1,152,637	29,718	96,564	818	—	—
Tailings	7,876	5,617	—	—	—	—	—
To foreign plants:							
Ores and tailings	1,926	268,286	2	4,014	930,662	—	—
Copper concentrates	58,154	10,549,131	16,069	153,056	34,533,327	—	—
Zinc concentrates	145,596	17,475,602	34	353	—	—	156,097,326
Iron pyrite concentrates	319,202	1,049,898	—	—	—	160,175	—
Precipitates	420	115,133	—	—	411,438	—	—
Lead concentrates	6,752	932,511	7,417	414,867	171,950	7,233,910	694,942
Gold concentrates	14	4,745	139	103	98	—	—
Total shipments	2,711,155	175,186,143	527,130	6,193,155	480,029,102	255,376	323,720,276
Other operating revenue .....	...	277,089	...	...	...	...	...
Value of process supplies, etc. ³ .....	...	66,415,366	...	...	...	...	...
Net value added .....	...	109,047,866	...	...	...	...	...

¹ In addition, cadmium, bismuth, tellurium and selenium are recovered from these ores.² Lead content.³ Includes freight on ore shipments, smelter charges, purchased electricity and fuel.

TABLE 34. Ores Mined, Milled, and Concentrates Produced, by the Copper-Gold-Silver Mining Industry, 1952-61

Year	Ore mined	Ore milled	Copper concentrates produced ¹	Zinc concentrates produced	Iron pyrite concentrates produced	Lead concentrates produced
tons						
1952	7,773,341	7,128,795	701,725	233,046	460,753	—
1953	7,438,500	6,606,631	697,285	216,686	398,429	—
1954	8,501,569	7,982,320	806,157	234,364	505,504	—
1955	9,911,751	9,375,687	909,466	230,236	653,918	—
1956	10,422,648	10,442,164	931,328	230,220	578,923	—
1957	10,570,801	10,009,694	1,135,664	229,514	528,388	—
1958	11,484,960	11,274,297	1,106,733	229,962	782,828	—
1959	12,436,105	11,577,414	1,135,190	231,959	674,450	—
1960	13,973,786	13,316,340	1,266,757	270,705	573,340	2,040
1961	15,008,993	14,411,758	1,259,871	299,806	508,854	6,762

¹ Exclusive of copper precipitate.

TABLE 35. Employees and their Earnings in the Copper-Gold-Silver Mining Industry, 1957-61

Year	Employees					Man-hours worked (all employees)	Earnings		
	Administration		Workmen		Total		Administration	Workmen	Total
	Male	Female	Male	Female					
	number						dollars		
1957	1,493	219	8,570	77	10,359	22,946,894	9,134,100	37,560,252	46,694,352
1958	1,327	184	7,329	35	8,875	18,958,827	7,723,473	32,021,770	39,745,243
1959	1,339	187	8,116	40	9,682	20,429,780	7,867,882	35,592,759	43,460,641
1960	1,313	219	8,969	48	10,549	22,541,084	8,512,429	40,428,553	48,940,982
1961	1,482	209	9,160	50	10,901	22,564,843	9,143,395	42,315,763	51,459,158

TABLE 36. Number of Workmen, by Months, 1960 and 1961

Month	1960	1961					
	Total	Mine			Mill		Total
		Surface		Underground	Male	Female	
		Male	Female	Male			
January	8,380	3,288	42	4,605	942	6	8,883
February	8,400	3,281	42	4,544	943	6	8,816
March	8,487	3,334	42	4,568	935	6	8,885
April	8,474	3,359	42	4,592	960	6	8,959
May	8,987	3,465	44	4,680	1,086	7	9,282
June	9,366	3,642	48	4,716	1,136	8	9,548
July	9,716	3,789	46	4,738	1,129	8	9,710
August	9,725	3,727	46	4,771	1,163	8	9,715
September	9,302	3,518	44	4,726	1,111	7	9,406
October	9,245	3,507	41	4,669	1,113	7	9,357
November	9,095	3,350	42	4,462	1,106	8	8,968
December	8,875	3,215	42	4,439	1,087	7	8,798
Averages	9,017	3,475	43	4,624	1,061	7	9,210
Man-hours worked	19,226,036						19,107,891

TABLE 37. Fuel and Electricity Used in the Copper-Gold-Silver Mining Industry, 1961

Kind	Quantity	Cost at plant
		\$
Bituminous coal (a) From Canadian mines	short ton 1,439	18,348
(b) Imported	" 1,271	22,922
Sub-bituminous coal (from Alberta mines only)	" 41	587
Anthracite coal	" 19	756
Lignite coal	—	—
Coke for fuel only	short ton 37	887
Gasoline, (includes gasoline used in cars and trucks)	Imp. gal. 490,519	182,828
Kerosene or coal oil	" 5,176	1,750
Fuel oil	" 6,110,955	1,069,335
Wood (cords of 128 cubic feet of piled wood)	cord 6	45
Gas (a) Liquefied petroleum gases (propane, etc.)	Imp. gal. 77,340	24,940
(b) Other manufactured gas	—	—
(c) Natural gas	M. cu. ft. 88,640	3,645
Other fuel	—	48,171
Electricity purchased for power and lighting	kwh. 665,530,402	4,513,871
Electricity purchased for other purposes	—	—
Steam purchased	pound 55,029,150	44,021
Totals .....	...	5,932,106
Electricity generated (a) For own use	kwh. 57,656,748	...
(b) For sale	" 819,000	65,038

TABLE 38. Specified Expenditures by the Copper-Gold-Silver Mining Industry, 1961

	1961
	\$
(a) Workmen's compensation	1,419,762
(b) Silicosis assessment	193,226
(c) Unemployment insurance	492,702
(d) Aggregate cost of structures, roads, machinery, equipment, etc., built by or purchased from outside contractors or suppliers and chargeable to Fixed Assets Account	13,268,888
(e) Book value of fixed assets (new structures, roads, machinery, equipment, etc., including major repairs and alterations) produced by own employees and chargeable to Fixed Assets Account	4,957,282
(f) Other capital expenditures not reported in (d) and (e)	4,421,084
(g) Cost of materials and supplies used in the production of machinery and equipment and in the construction of roads and new structures (including major repairs and alterations by own employees and chargeable to Fixed Assets Account)	2,215,585
(h) Cost of all other goods, materials and supplies (including office, medical, laboratory, cafeteria and store supplies) purchased and not chargeable to Fixed Assets Account	41,187,252

TABLE 39. Taxes Paid by the Copper-Gold-Silver Mining Industry, 1959-61

	1959	1960	1961
		dollars	
Dominion income tax, including tax on non-operating revenue	7,121,825	11,953,865	11,313,497
Provincial tax	4,389,509	5,764,686	6,896,685
Municipal tax	1,462,807	1,945,961	1,876,876
Grand total taxes paid	12,974,141	19,664,512	20,087,058

TABLE 40. Estimated Capital and Repair Expenditures by Other¹ Metal Mines, 1960-63

Year	Capital expenditures			Repair expenditures			Capital and repair expenditures		
	Construction	Machinery	Total	Construction	Machinery	Total	Construction	Machinery	Total
thousands of dollars									
1960	21,758	13,371	35,129	8,020	16,479	24,499	29,778	29,850	59,628
1961	19,772	12,467	32,239	6,922	17,593	24,515	26,694	30,060	56,754
1962 ²	18,763	12,816	31,579	7,405	19,327	26,732	26,168	32,143	58,311
1963 ³	16,321	10,635	26,956	6,408	18,997	25,405	22,729	29,632	52,361

¹ Includes copper-gold-silver, nickel-copper and silver-cobalt mines.² Preliminary estimates.³ Intentions.

Source: Private and Public Investment in Canada, Outlook 1963.

TABLE 41. Cost of Prospecting¹ Conducted by the Copper-Gold-Silver Mining Industry, by Provinces, 1960 and 1961

Conducted in	1960	1961	Conducted in	1960	1961
dollars			dollars		
Newfoundland	385,623	588,297	Saskatchewan	575,099	859,520
Nova Scotia	186,350	184,268	Alberta	904	892
New Brunswick	809,925	490,739	British Columbia	2,508,003	2,666,130
Quebec	7,696,468	7,450,734	Northwest Territories	226,046	248,158
Ontario	3,763,158	3,002,677	Yukon	304,612	263,862
Manitoba	2,649,070	2,611,871	Totals	19,105,258	18,367,148

¹ Includes some development work.

TABLE 42. Drilling Completed on Copper-Gold-Silver Deposits, 1960 and 1961

	Footage drilled	
	1960	1961
Diamond drilling for exploration (testing only):		
By mining companies with their own personnel and equipment	44,141	96,889
By diamond drilling contractors	1,641,140	1,441,784
Other diamond drilling:		
Blast hole diamond drilling:		
By mining companies with their own personnel and equipment	685,252	630,342
By diamond drilling contractors	579,436	561,017
Drilling by percussion or other machines ¹	22,184,405	23,077,057

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

Note: Value of diamonds in all forms (stones, bits, etc.) purchased during the year, \$98,790.

TABLE 43. Copper Production (Recoverable) according to Nature of Ore, and by Provinces, 1959-61

Province	From copper-gold-silver ores	From nickel-copper ores	From other ores	Total
tons				
1959				
Newfoundland	12,097	—	2,892	14,989
Nova Scotia	—	—	—	—
New Brunswick	—	—	—	—
Quebec	131,877	—	3,035	134,912
Ontario	28,328	157,167	2,778	188,273
Manitoba	8,365	4,580	—	12,945
Saskatchewan	35,536	—	—	35,536
British Columbia	6,781	249	1,091	8,121
Northwest Territories	—	493	—	493
Canada	222,984	162,489	9,796	395,269
1960				
Newfoundland	10,797	—	3,066	13,863
Nova Scotia	—	—	—	—
New Brunswick	—	—	—	—
Quebec	154,094	—	3,376	157,470
Ontario	30,111	171,860	4,501	206,272
Manitoba	8,053	4,740	—	12,793
Saskatchewan	31,785	—	—	31,785
British Columbia	14,993	676	890	16,559
Northwest Territories	—	520	—	520
Canada	249,833	177,596	11,833	439,262
1961				
Newfoundland	12,585	—	3,167	15,752
Nova Scotia	—	—	—	—
New Brunswick	—	—	—	—
Quebec	145,583	—	3,424	149,007
Ontario	34,269	172,506	4,872	211,647
Manitoba	5,981	6,473	—	12,454
Saskatchewan	33,479	—	—	33,479
British Columbia	13,485	737	1,624	15,846
Northwest Territories	—	463	—	463
Yukon	440	—	—	440
Canada	245,822	180,179	13,087	439,088

TABLE 44. Production of Refined Copper,¹ 1952-61

Year	Short tons	Year	Short tons
1952	196,320	1957	323,540
1953	236,966	1958	329,239
1954	253,365	1959	365,366
1955	288,997	1960	417,029
1956	328,458	1961	406,359

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

TABLE 45. Silver Production (Recoverable) according to Nature of Ore, by Provinces, 1961

Province	Crude placer gold	Auriferous quartz ores	Copper-gold-silver ores	Nickel-copper ores	Silver-lead-zinc ores	Silver-cobalt and other ores	Total
troy ounces							
Newfoundland	—	—	—	—	1,145,105	—	1,145,105
Nova Scotia	—	—	—	—	—	—	—
New Brunswick	—	—	—	—	—	—	—
Quebec	64	125,263	2,806,583	—	1,383,934	—	4,315,844
Ontario	—	404,693	1,545,426	1,785,643	454,104	4,680,536	8,870,402
Manitoba	—	5,382	756,250	5,911	—	—	767,543
Saskatchewan	—	—	876,450	—	—	—	876,450
Alberta	17	—	—	—	—	—	17
British Columbia	431	32,506	154,866	—	8,203,837	—	8,391,640
Northwest Territories	—	77,890	—	—	—	—	77,890
Yukon	13,556	—	3,332	—	6,920,198	—	6,937,086
Canada	14,068	645,734	6,142,907	1,791,554	18,107,178	4,680,536	31,381,977

TABLE 46. Selenium and Tellurium Recoverable from Canadian Ores, 1952-61

Year	From copper-gold-silver ores		From nickel-copper ores		Total	
	Selenium	Tellurium	Selenium	Tellurium	Selenium	Tellurium
	pounds					
1952	160,452	325	81,578	5,710	242,030	6,035
1953	169,648	169	92,698	4,525	262,346	4,694
1954	228,703	976	94,826	7,195	323,529	8,171
1955	332,644	2,559	94,465	6,455	427,109	9,014
1956	221,233	1,562	109,156	6,305	330,389	7,867
1957	234,933	24,609	86,459	6,915	321,392	31,524
1958	216,695	31,558	90,295	6,692	306,990	38,250
1959	266,707	6,123	101,400	6,900	368,107	13,023
1960	377,138	37,232	144,500	7,450	521,638	44,682
1961	265,812	69,559	164,800	8,050	430,612	77,609

TABLE 47. Zinc Production (Recoverable) according to Nature of Ore, and by Provinces, 1960 and 1961

Year and province	Recoverable from copper-gold-silver ores	Recoverable from silver-lead-zinc and other ores	Total
	tons (2,000 pounds)		
1960			
Newfoundland	—	34,208	34,208
Nova Scotia	—	—	—
New Brunswick	—	—	—
Quebec	35,953	13,854	49,807
Ontario	21,824	23,406	45,230
Manitoba	24,390	—	24,390
Saskatchewan	42,703	—	42,703
British Columbia	5,298	198,535	203,833
Yukon	—	6,702	6,702
Totals	130,168	276,705	406,873
1961			
Newfoundland	—	34,638	34,638
Nova Scotia	—	—	—
New Brunswick	—	—	—
Quebec	31,358	22,647	54,005
Ontario	32,562	19,375	51,937
Manitoba	46,509	—	46,509
Saskatchewan	28,360	—	28,360
British Columbia	2,798	191,688	194,486
Yukon	—	6,069	6,069
Totals	141,587	274,417	416,004

TABLE 48. Refined Zinc Produced, from all Sources, 1952-61

Year	Short tons	Year	Short tons
1952	222,200	1957	247,316
1953	250,961	1958	252,093
1954	253,365	1959	255,306
1955	256,542	1960	260,968
1956	255,564	1961	268,007

TABLE 49. Cadmium Production (Recoverable) from Canadian Ores, 1952-61

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		
1952	205,911	742,676	948,587	1957	286,044	2,082,086	2,368,130
1953	157,997	960,288	1,118,285	1958	355,602	1,400,448	1,756,050
1954	154,596	932,184	1,086,780	1959	334,029	1,826,334	2,160,363
1955	191,691	1,727,390	1,919,081	1960	466,200	1,891,297	2,357,497
1956	208,327	2,131,094	2,339,421	1961	307,757	1,050,117	1,357,874

TABLE 50. Average Annual Metal Prices in Canadian Dollars, 1952-61

Year	Gold	Silver	Copper	Lead	Zinc
	Per troy ounce	Per troy ounce	Per pound	Per pound	Per pound
dollars					
1952.....	34.27	0.8352	0.2854	0.1619	0.1746
1953.....	34.42	0.8401	0.299	0.1293	0.1196
1954.....	34.07	0.8326	0.2916	0.1333	0.1198
1955.....	34.52	0.8818	0.3687	0.1438	0.1365
1956.....	34.45	0.8968	0.4141	0.1551	0.1484
1957.....	33.55	0.8737	0.2895	0.1396	0.1209
1958.....	33.98	0.8681	0.2542	0.1136	0.1088
1959.....	33.57	0.8778	0.2961	0.1061	0.1224
1960.....	33.95	0.8891	0.3029	0.1068	0.1335
1961.....	35.46	0.9426	0.2919	0.1021	0.1259

TABLE 51. World Copper Production by Countries of Origin of Ore¹

Country	1957	1958	1959	1960	1961
tons (2,000 pounds)					
United States.....	1,092,744	990,253	840,000	1,092,500	1,159,556
Mexico.....	66,799	71,609	63,133	66,502	54,359
Canada.....	359,109	345,114	395,269	439,262	439,088
Cuba.....	15,306	13,992	9,942	13,058	10,000
Bolivia ²	4,319	3,168	2,460	2,503	2,292
Chile.....	533,855	509,541	600,571	586,643	603,424
Peru.....	63,023	59,104	55,871	200,311	218,313
Totals, America.....	2,135,155	1,992,781	1,967,246	2,400,779	2,487,032
Austria.....	2,574	2,695	2,726	2,188	2,105
Finland.....	28,321	31,569	33,132	31,580	35,745
France.....	496	794	672	772	551
Germany, West.....	1,203	1,156	2,256	2,454	2,389
Italy.....	428	761	665	561	691
Norway.....	16,787	17,501	15,828	16,965	15,379
Spain ³	11,077	7,466	12,137	8,786	20,029
Sweden.....	19,697	19,836	18,838	18,396	18,629
Yugoslavia.....	36,883	38,840	38,141	36,681	41,787
Totals, Europe.....	117,466	120,618	124,395	118,383	137,305
Japan.....	90,066	89,836	93,969	98,036	106,272
India.....	8,790	8,782	8,459	9,822	9,190
Korea, Republic of.....	1,011	842	529	649	584
Turkey.....	23,716	24,676	27,385	26,928	20,525
Philippines.....	44,513	51,841	54,587	48,512	57,182
Cyprus ⁴	43,676	36,614	39,978	39,096	31,585
Totals, Asia.....	211,772	212,591	224,907	223,043	225,338
Israel.....	—	—	4,723	6,143	6,969
Katanga, State of.....	267,026	261,865	310,952	332,900	324,422
Northern Rhodesia.....	480,313	441,072	598,834	635,326	633,534
Southern Rhodesia.....	3,226	8,430	12,016	15,128	14,979
South West Africa.....	30,466	32,065	31,695	21,692	23,377
Uganda.....	8,360	12,130	13,362	16,265	14,720
Union of South Africa.....	47,752	53,375	53,575	52,041	55,464
Totals, Africa.....	837,143	808,937	1,025,157	1,079,495	1,073,465
Australia.....	58,465	76,867	101,062	117,741	96,823
U.S.S.R.	446,400	463,000	485,000	507,000	523,600
Bulgaria.....	7,700	8,600	11,000	12,100	13,200
Germany, East.....	18,400	19,300	20,800	27,500	27,500
Poland.....	8,300	8,800	9,900	11,600	12,900
China.....	16,000	33,000	44,000	44,000	50,000
Soviet Sphere totals.....	496,800	532,700	570,700	602,200	627,200
World totals, as reported⁴.....	3,856,801	3,746,494	4,013,507	4,541,641	4,647,163

¹ Includes copper contents or recoverable contents of ores or concentrates smelted in country of origin and/or shipped to other countries for smelting.

² Exports.

³ Excludes copper content of iron pyrites which may or may not have been recovered.

⁴ In addition there is production in Brazil, Ireland, Portugal, Burma, Taiwan, Algeria, Angola, Southern Zone Morocco, Tanganyika; the total of all these countries is estimated to be about 17,000 tons in 1961.

Source: "American Bureau of Metal Statistics' Year Book".

TRANSACTIONS IN GOLD BULLION AT THE ROYAL CANADIAN MINT

(From the Annual Report of the Royal Canadian Mint)

Six thousand and fifty-eight deposits of gold bullion were received during the year from Canadian Mining Companies and Sundry Persons. The composition of the deposits was as follows:

Fine Gold—

448 deposits weighing 343,025.565 ounces with a mean fineness of 996.859

Crude Bullion—

3,353 deposits weighing 2,677,815.153 ounces with an average fineness of 773.112 gold, 217.020 silver and containing 0.9868% base metal

Scrap (Jewellery and Dental)—

254 deposits, 16,845.270 ounces of an average fineness of 524.134 gold and 75.191 silver

Gold for Storage—

2,003 deposits weighing 1,707,953.364 ounces with an average fineness of 807.462

The net value paid to depositors was \$85,387,379.84. In addition the amount of fine gold issued to depositors was 1,354,571.393 ounces.

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

	Ounces Fine
6,130 Trade bars transferred to Exchange Fund	
Account of Minister of Finance	2,449,642.801
Depositors - Granulated and bars	1,354,571.393
Sales of fine gold	49.166
Trial Plate for assay purposes	4.084
Medals, etc.	16.357
Sweep	7,770.485
Total	3,812,054.286

This total shows a decrease of 202,716.819 ounces fine issued as compared with the year 1960.

Comparative Statement showing Details of Gold Deposits Received for 1960 and 1961

	Number of deposits received				Gross ounces			
	1960	1961	Increase	Decrease	1960	1961	Increase	Decrease
Sale to Her Majesty	3,963	3,801	—	162	3,235,021	3,020,841	—	214,180
For storage	2,020	2,003	—	17	1,720,707	1,707,953	—	12,754
Jewellery and scrap	251	254	3	—	14,998	16,845	1,847	—
Total received	6,234	6,058	—	176	4,970,726	4,745,639	—	225,087
	Fine gold ounces				Fine silver ounces			
	1960	1961	Increase	Decrease	1960	1961	Increase	Decrease
Sale to Her Majesty	2,581,596	2,412,200	—	169,396	572,993	582,406	9,413	—
For storage	1,435,732	1,379,108	—	56,624	—	—	—	—
Jewellery and scrap	7,298	8,829	1,531	—	—	—	—	—
Total received	4,024,626	3,800,137	—	224,489	572,993	582,406	9,413	—

Details of origin of the bullion deposited for sale to Her Majesty and for storing during the year 1961 are shown in the following table:

From Canadian mines and refineries	Sale to Her Majesty		Gold storage		Total		Total fine silver
	Gross weight	Fine gold	Gross weight	Fine gold	Gross weight	Fine gold	
	ounces						
Ontario	1,997,708.562	1,622,881.082	1,010,829.814	895,519.198	3,008,538.376	2,518,400.280	299,683.41
Quebec	825,303.880	633,208.528	64,251.850	15,112.936	889,555.730	648,321.464	165,506.84
British Columbia	72,505.586	57,965.500	76,045.970	64,320.440	148,551.556	122,285.940	19,529.02
Manitoba	42,909.270	31,827.425	—	—	42,909.270	31,827.425	5,539.58
Yukon Territory	82,220.290	66,146.576	—	—	82,220.290	66,146.576	13,564.79
North west Territories	—	—	556,825.730	404,155.618	556,825.730	404,155.618	77,298.84
Alberta	193.130	170.942	—	—	193.130	170.942	16.97
Total from Canadian mines and refineries	3,020,840.718	2,412,200.053	1,707,953.364	1,379,108.192	4,728,794.082	3,791,308.245	581,139.45
From jewellery and scrap	16,845.270	8,829.174	—	—	16,845.270	8,829.174	1,266.61
Grand totals	3,037,685.988	2,421,029.227	1,707,953.364	1,379,108.192	4,745,639.352	3,800,137.419	582,406.06

The following table gives details of fine bullion produced during the year:

Produced	Number	Gross weight	Fine weight	Average assay
		ounces		
Fine gold bars	6,126	2,454,092.100	2,447,876.250	997.5
Granulated gold	—	1,959.420	1,959.224	999.9
Fine silver bars	511	566,025.45	565,906.82	999.8
Granulated silver	—	4,000.00	3,999.20	999.8
Gold trial plate	—	—	4.084	—
Gold medals	—	—	135.974	—
Silver medals	—	—	51.84	—
Finishing and plating medals	—	—	.537	—
Storage — Gold bars	3,322	1,331,202.949	1,327,974.870	997.6
Granulated gold	—	25,371.574	25,368.554	999.8

Special processes	Number	Gross weight
		ounces
Remelts	200	119,622.010
Toughenings	4	198.200
		pounds avoirdupois
Chloride reduction	—	81,009.0
Sweeps	—	104,327.0

GOLD STORAGE

During the year twelve mines deposited gold bullion at the Mint under the terms of the Regulations prescribing the circumstances under which and the conditions upon which gold will be accepted at the Royal Canadian Mint for storage.

The fine gold content of the bullion deposited under this heading during 1961 amounted to 1,379,108.192 ounces. Fine bullion amounting to 1,350,196.865 ounces was issued on behalf of the mines for export and to various processors for domestic use.

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, 1961

Year	Gold received		Gold issued	
	Gross weight	Fine gold	Coin	Bullion
	ounces		ounces fine	
1908 to 1951	127,008,143.346	102,380,364.777	383,319.096	101,773,275.077
1952	4,848,048.381	3,953,158.154	—	4,031,068.071
1953	4,642,410.478	3,684,073.637	—	3,626,496.738
1954	4,768,451.365	3,829,430.609	—	3,998,835.566
1955	4,878,918.379	3,947,636.509	—	3,952,764.485
1956	4,693,484.529	3,801,788.815	—	3,774,599.457
1957	4,798,296.343	3,896,083.563	—	3,776,710.677
1958	4,868,066.405	3,958,458.747	—	4,088,706.348
1959	4,805,493.520	3,908,640.185	—	3,836,679.842
1960	4,970,726.079	4,024,625.964	—	4,014,771.105
1961	4,745,639.352	3,800,137.419	—	3,812,054.286
Totals	175,027,678.177	141,184,398.379	383,319.096	140,685,961.652

CURRENCY, MINT AND EXCHANGE FUND ACT

Gold Bullion Regulations, 1959

AT THE GOVERNMENT HOUSE AT OTTAWA

P.C. 1959-100

Thursday, the 29th day of January, 1959.

Present:

His Excellency the Governor General in Council

His Excellency the Governor General in Council, on the recommendation of the Minister of Finance, pursuant to the Currency, Mint and Exchange Fund Act, is pleased hereby to revoke the Gold Bullion Regulations made by Order in Council P.C. 1954-1584 of 19th October, 1954,¹ and the Mint Custom Refining and Storing Regulations made by Order in Council P.C. 1956-450 of 22nd March, 1956,² and to make the annexed Regulations Respecting the Handling of Gold Bullion at the Royal Canadian Mint in Substitution therefor.

REGULATIONS RESPECTING THE HANDLING OF
GOLD BULLION AT THE ROYAL CANADIAN MINT

Short Title

1. These Regulations may be cited as the Gold Bullion Regulations, 1959.

Interpretation

2. In these Regulations,

- (a) "deposit" means a parcel of bullion or other material containing gold;
- (b) "Master" means the Master of the Mint;
- (c) "Minister" means the Minister of Finance; and
- (d) "Mint" means the Royal Canadian Mint.

Deposits

3. (1) The Master may accept for assaying, refining, storing or any other purpose, a deposit that is delivered free of all charges to the Mint if the deposit contains

- (a) newly mined Canadian gold,
- (b) old jewellery or dental scrap that has not been melted or otherwise treated to prevent its origin being readily recognized,
- (c) scrap resulting from processes carried out by manufacturers and refiners in the ordinary course of their business, or
- (d) gold coin that is not legal tender in Canada.

(2) The Master shall not accept

- (a) a deposit of a kind not described in subsection (1) unless he is authorized to do so by the Minister,
- (b) an ingot exceeding one thousand and two hundred ounces troy, gross weight, or
- (c) a deposit that appears to him to be unsuitable for treatment by the refining processes in use at the Mint.

(3) The Master is not obliged to accept any deposit and before accepting a deposit he may require the depositor to furnish evidence satisfactory to him as to the origin of the deposit.

4. (1) Where a deposit is delivered to the Mint for the purpose of selling the gold content thereof to Her Majesty, the Minister may, on behalf of Her Majesty, buy the gold content of that deposit.

(2) It is a condition under which a deposit is accepted at the Mint that the silver content thereof belongs to Her Majesty, subject to payment by the Minister in accordance with these Regulations for that part of the silver content of the deposit that is in excess of one per cent of the weight of the deposit after melting.

5. (1) Each parcel of bullion for which a separate assay is required shall be regarded as a separate deposit and all deposits accepted by the Master shall be valued in the order in which they are received.

(2) As soon as possible after a deposit has been accepted by the Master, the content of the deposit shall be determined and valued on the report of the Assay Division of the Mint.

(3) Gold shall be reported on the Assay Division Report to the one-four-thousandth part (one-quarter millieme), except that when the gold millesimal fineness of the bullion exceeds nine hundred and ninety, the gold shall be reported to the one-ten-thousandth part (one-tenth millieme), and silver shall be reported to the one-thousandth part (1 millieme), but only that part of the silver content of the deposit that is in excess of one per cent of the weight of the deposit after melting shall be reported.

(4) Where it is determined that a deposit contains less than two hundred parts of gold in one thousand by assay, or that a deposit is unsuitable for treatment by the refining process in use at the Mint, the Master shall, upon payment by the depositor of the Mint charges for melting and assaying, deliver the deposit at the Mint counter to the depositor.

(5) On the completion of the valuation of a deposit the Master shall, unless the deposit is to be returned to the depositor in accordance with subsection (4), furnish the depositor with a memorandum in duplicate of the outturn of his deposit.

(6) The memorandum mentioned in subsection (5) shall state

- (a) the weight of the deposit before and after melting,
- (b) the assay report,
- (c) the fine gold and the fine silver content of the deposit,
- (d) the gross value of the fine content at the price applicable to the deposit calculated in accordance with sections 6 and 7,
- (e) the Mint charges applicable to the deposit,
- (f) where the deposit was delivered to the Mint for the purpose of selling the gold content thereof to Her Majesty, the net value of the fine gold and fine silver contents of the deposit, being the gross value minus the Mint charges, and
- (g) where the deposit was delivered to the Mint for a purpose other than that of selling the gold content thereof to Her Majesty, the net value of the fine silver content of the deposit, being the gross value thereof minus the Mint charges.

(7) Where a deposit was delivered to the Mint for the purpose of selling the gold content thereof to Her Majesty, the Minister shall, the same time as the memorandum mentioned in subsection (5) is furnished to the depositor, pay to the depositor as the full purchase price of the fine gold and fine silver contents of the deposit an amount equal to the net value of the fine contents of the deposit as stated in the memorandum.

¹ SOR/54-181, CANADA GAZETTE PART II, Vol. 88, No. 21, Nov. 10, 1954, p. 1430 and Statutory Orders and Regulations Consolidation 1955, Vol. 1, p. 683.

² SOR/56-117, CANADA GAZETTE PART II, Vol. 90, No. 7, April 11, 1956.

(8) Where a deposit was delivered to the Mint for a purpose other than that of selling the gold content thereof to Her Majesty, the Minister shall, at the same time as memorandum mentioned in subsection (5) is furnished to the depositor, pay to the depositor, as the full purchase price of the silver content of the deposit, an amount equal to the net value of the fine silver content of the deposit as stated in the memorandum.

6. The price payable by the Minister for the gold content of a deposit is the market price of gold in the country to which the Government of Canada is, at the time the deposit is received, exporting gold, converted into Canadian funds at the average of the rates of exchange for the currency of that country, reported to the Minister by the Bank of Canada on the day Monday to Friday, inclusive, of the week in which the deposit is delivered to the Master such price hereinafter referred to as the "Mint buying price".

7. The price payable by the Minister for the silver content of a deposit is the average of the official New York daily quotation for fine silver for the days Monday to Friday, inclusive, of the week in which the deposit is delivered to the Master, converted into Canadian funds at the average of the rates of exchange for United States funds reported to the Minister by the Bank of Canada on the days Monday to Friday, inclusive, of that week.

Mint Charges

8. (1) The Mint charge payable by a depositor to the Master in respect of a deposit shall be calculated as follows on the gross weight of the deposit after melting:

- (a) for melting and assaying, one dollar for the first four hundred ounces or part thereof and twenty-five cents for each additional one hundred ounces or part thereof; and
- (b) for refining,
 - (i) when the deposit contains not more than five per cent base metal, three cents per ounce,
 - (ii) when the deposit contains over five per cent base metal but not over ten per cent base metal, three and one-half cents per ounce,
 - (iii) when the deposit contains over ten per cent base metal but not over fifteen per cent base metal, four and one-quarter cents per ounce,
 - (iv) when the deposit contains over fifteen per cent base metal but not over twenty per cent base metal, five cents per ounce, and
 - (v) when the deposit contains over twenty per cent base metal, or requires toughening or other special treatment in order to obtain concordant assays, such charge, not exceeding ten cents per ounce, as determined by the Master after taking into account the cost of treatment.

(2) Notwithstanding paragraph (b) of subsection (1), the minimum charge for refining is two dollars for each deposit, and the charge for refining applies in respect of all deposits containing, by assay, less than nine hundred and ninety-five parts fine gold in one thousand.

(3) A depositor shall pay to the Master for every deposit that is delivered to the Mint for the purpose of selling the gold content thereof to Her Majesty, a handling charge to cover the cost of marketing outside Canada as follows:

- (a) for newly mined Canadian gold, twenty cents per fine ounce,
- (b) for bars of fine gold that the Master is authorized by the Minister to accept for that purpose, twenty cents per fine ounce, and
- (c) for all other gold, one dollar per fine ounce.

(4) In respect of every deposit that is delivered to the Mint for the purpose of storing the gold content thereof, the depositor shall pay the following charges:

- (a) one cent for every thirty days or fraction thereof (including the day on which the deposit is received at the Mint but excluding the day on which it is shipped from the Mint) for each fine ounce of gold so stored, payable at the time of

application for release of the gold or when billed, whichever is the earlier,

- (b) ten cents for each fine ounce packed at the Mint for shipment, payable at the time of application for the release of the gold, and
- (c) a handling charge of twenty cents for each fine ounce of gold released from storage for sale to Her Majesty, payable at the time of sale.

(5) In respect of every deposit that is delivered to the Mint for a purpose not described in subsection (3) or (4), and packing of fine gold is involved, the depositor shall pay at the time of shipment one dollar for the first ten ounces of fine gold or part thereof, and ten cents for each additional ounce or part thereof that is packed at the Mint for shipment.

(6) It is a condition under which a deposit is accepted at the Mint that the Master may retain a portion of the fine gold content thereof in payment of the Mint charges in respect of that deposit.

9. The fine gold content of a deposit held in storage at the Mint shall be released only upon application therefor in the form prescribed by the Minister.

10. Every deposit is accepted at the Mint subject to the condition that the fine gold content thereof shall be released in a form that is at least .995 fine.

Sale of Gold

11. (1) The Master may, with the approval of the Minister, sell fine gold from the Mint that belongs to Her Majesty.

(2) The price at which each fine ounce of gold shall be sold is the Mint buying price per fine ounce for the week immediately preceding the week in which the gold is sold plus ten cents.

General

12. (1) Deposits may be delivered to the Mint on Monday to Friday, inclusive, between the hours of 9:30 a.m. and 4:30 p.m. unless such a day is a holiday mentioned in or authorized pursuant to the Civil Service Act.

(2) Where a deposit is delivered to the Mint, it shall be withheld from treatment until an invoice setting out the description and weight of the contents thereof has been received by the Master, and where there is a discrepancy between the actual and invoice weights of a deposit, the deposit shall not be further dealt with until the Master has notified the depositor of the discrepancy and has received further instructions from the depositor.

(3) All gold shipped from the Mint shall be delivered at the Mint counter to the purchaser of the gold, to the depositor or his authorized agent.

13. It is a condition under which newly mined gold is accepted at the Mint for storage that the depositor prepare and mail to the Minister within thirty days of the last day of each month a report for that month in the form prescribed by the Minister showing, *inter alia*,

- (a) fine gold held by him or on his behalf at the beginning of the month
 - (i) at the Mint, and
 - (ii) at places other than the Mint and the location of those places;
- (b) refined gold produced during the month;
- (c) sales made during the month indicating,
 - (i) the name and address of the purchaser,
 - (ii) the amount in ounces sold to each purchaser,
 - (iii) the value, in Canadian funds, of the gold sold to each purchaser, and
 - (iv) the price paid, in Canadian funds, for each fine ounce of gold so sold; and
- (d) fine gold held by him or on his behalf at the end of the month
 - (i) at the Mint, and
 - (ii) at places other than the Mint and the location of those places.

List of Operators of Gold Mines, 1961

Name	Head or executive office address	Location
(a) Placer Gold Mines		
Quebec:		
Beauce Placer Mining Co. Ltd.	620 Cathcart St., Montreal	Beauceville
British Columbia:		
Allied Mining Services	Vancouver, B.C.	
Archibald, H.	Trail, B.C.	
Ad. Astra Minerals Ltd.	526 Northern Hardware Bldg., Edmonton, Alta.	Squaw Creek
Bobier, E.L.	Quesnel, B.C.	Cariboo
Butler, V.	Williams Lake, B.C.	Cariboo
Cresswell, R.	Box 231 Quesnel, B.C.	Cariboo
Craft, S.P. & G.R.	Atlin, B.C.	Atlin
De Lorme, A.	Prince George, B.C.	Cariboo
Ethier, C.S.	Vancouver, B.C.	
Ferguson, Don S.	McBride, B.C.	
Feyer, J.H.	Box 2018, Quesnel, B.C.	Cariboo
Foreman, Mrs. L.	Quesnel, B.C.	Cariboo
Fredericks, Fred	Likely, B.C.	Cariboo
Fuson, Leo	Prince George, B.C.	Cariboo
Garson Mitchell	Williams Lake, B.C.	Lillooet
Gunn, J.J.	Wells, B.C.	Cariboo
Hamilton, T.C.	Manson Creek, B.C.	
Harris, H.	Box 335, Vernon, B.C.	Vernon Mining District
Henry, N.B.	Fort St. James, B.C.	
Hixon Placers Inc.	2032 Third Ave., Seattle, Wash.	Cariboo
Jack, Gene	Prince George, B.C.	Cariboo
Johnson, Fred W.	Quesnel, B.C.	
Johnson, V.	Quesnel, B.C.	
Kidd Russell	Williams Lake, B.C.	Lillooet
Knudson, L.E.	Quesnel, B.C.	Cariboo
Langevin, D.	Atlin, B.C.	Atlin
Langley, Peter	Vancouver, B.C.	
Lee, Frank	South Burnaby, B.C.	
Lewis, Mylow	Vernon, B.C.	
Lloyd, M.	Prince George, B.C.	
Manson Creek Gold Mines	Prince George, B.C.	
Mattson Bros.	Atlin, B.C.	Atlin
McJana Placers	Quesnel, B.C.	Cariboo
McKittrick, H.	Richmond, B.C.	
Morrison, D.L.	Williams Lake, B.C.	
Ogden, Charles	Williams Lake, B.C.	
Osion, Edward	Prince George, B.C.	
Petty, Jack	Quesnel, B.C.	Cariboo
Piccolo, L.	Atlin, B.C.	Atlin
Polischuk, Paul	Atlin, B.C.	Atlin
Rollhelser, J.J.	Kimberley, B.C.	Perry Creek
Schulz, Louis	Atlin, B.C.	Atlin
Sheppard, R.	Quesnel, B.C.	Cariboo
Sherwood Mines Ltd.	Great Central Lake, B.C.	
Sissons, R.C.	Whitehorse, Yukon	
Smith, B.	Quesnel, B.C.	Cariboo
Smith, David	Quesnel, B.C.	Cariboo
Spruce Creek Placers	Atlin, B.C.	Atlin
Storey, R.	Louis Creek, B.C.	
Swanson, Carl	Quesnel, B.C.	Cariboo
Trommell Mining	Quesnel, B.C.	Cariboo
Troutline Creek Gold Ltd.	Edmonton, Alta.	
Williams, Rex	Quesnel, B.C.	Cariboo
Williams, S.N.	Quesnel, B.C.	Cariboo
Yukon:		
Action Mining Co. Ltd.	Mile 1054 Alaska Highway, Y.T.	Bullion Creek
Baliarat Mines Ltd.	Dawson, Yukon Territory	Dawson
Bardusan Placers Ltd.	Mayo, Yukon Territory	Mayo, Y.T.
Bleiler Placers	Whitehorse, Yukon Territory	Mayo
Bobcik A.	Mayo, Yukon	Duncan Creek
Boutillier, H.C. & D.F.	Dawson, Yukon Territory	Bonanza Creek
Bratsberg, B.	Dawson, Yukon Territory	Bonanza Creek
Bremmer, John	Dawson, Yukon Territory	Last Chance Creek
Bremmer, Mrs. M.	Dawson, Yukon Territory	Cariboo Creek
Burgelman, Mrs. Nellie	Dawson, Yukon Territory	Cariboo Creek
Burwash Mining Co.	Whitehorse, Yukon Territory	Burwash Creek
Canadian Creek Placers Ltd.	Vancouver, B.C.	Canadian Creek, Yukon
Christenson, R.	Dawson, Yukon Territory	Dawson
Dominion Placers	Box 4, Dawson, Yukon	Quartz Creek
Duncan Creek Placers	Mayo, Y.T.	Mayo
Eureka Placers (Yukon) Ltd.	Dawson, Y.T.	Eureka Creek
Fty, A.T.	Box 19, Dawson, Y.T.	Bonanza Creek
Gould, John	Dawson, Y.T.	Dawson
Kinakin, Max	Dawson, Y.T.	Dublin Gulch
Komiensky, S.	Dawson, Y.T.	Stewart River

List of Operators of Gold Mines, 1961 - Continued

Name	Head or executive office address	Location
(a) Placer Gold Mines - Concluded		
Yukon - Concluded:		
Kingswell, Mrs. Edna	Dawson, Y.T.	Bedrock Creek
Lamontagne, J.A.	Dawson, Y.T.	Henderson Creek
La Saux & Perret	Dawson, Y.T.	Mayo
Malicky, Walter	Mayo, Y.T.	Dawson
Medby, Ole	Dawson, Y.T.	Dawson
Moen, O.	Dawson, Y.T.	Clear Creek
Netzel & Heitman Mining	Box 66 Dawson, Y.T.	
Northern Commercial Co.	Whitehorse, Y.T.	
Northern Yukon Services	Dawson, Y.T.	Eureka Creek
Paradise Hill Placers	Dawson, Y.T.	Eureka Creek
Peebler, R.R.	Whitehorse, Y.T.	
P. & G. Placers	Whitehorse, Y.T.	
Ross, L.M.	Dawson, Y.T.	Dawson
Schink, E.	Dawson, Y.T.	Dawson
Sissons, Robert C.	Whitehorse, Y.T.	
Smashnuk, George	Mayo, Yukon Territory	Mayo
Spruce Creek Placers	Whitehorse, Y.T.	
Strandberg, K.E.	Whitehorse, Y.T.	
Taylor, Fred W.	Mayo, Y.T.	Mayo
Vaillant, V.	Whitehorse, Y.T.	
Yukon Consolidated Gold Corp.	Dawson, Y.T.	Dawson
Yukon Placer Mining Co.	Dawson, Y.T.	Dawson
Alberta:		
Fester, Homer	12230 - 101 st. Edmonton, Alta.	North Saskatchewan River
(b) Gold Quartz Mines		
Nova Scotia:		
Smith, A.J.	East Chezzetcook	Lake Catcha
Redden, Fred C.	Middle Musquodobit	Lindsay Lake
MacMillan, MacKay	Issacs Harbour	Guysborough
East Hants Gold Mines Ltd.	Hants	Hants
Quebec:		
Akasaba Gold Mines Ltd.	199 Bay St., Toronto Ontario	Louvicourt Twp.
Ambassador Mining Developments Ltd.	372 Bay St., Toronto, Ontario	Malartic Twp.
American Chibougamau Mines Ltd.	265 Craig St. W., Montreal	Landrienne Twp.
Anacon Lead Mines Ltd.	330 Bay St., Toronto, Ontario	Rohault Twp.
Aumacho River Mines Ltd.	25 Adelaide St. W., Toronto, Ontario	Carpiquet Twp.
Aumaque Gold Mines Ltd.	100 Adelaide St. W., Toronto, Ontario	Bourlamaque Twp.
Ava Gold Mining Co. Ltd.	320 Bay St., Toronto, Ontario	Duparquet Twp.
Barnat Mines Ltd.	199 Bay St., Toronto, Ontario	Malartic
Bargold Mines Ltd.	100 Adelaide St. W., Toronto, Ontario	Barraute Twp.
Belleterre Quebec Mines, Ltd.	25 King St. W., Toronto 1, Ontario	Belleterre
Bevcon Gold Mines, Ltd.	199 Bay St., Toronto, Ontario	Louvicourt
Blackhawk Mining Ltd.	400 St. James St. W., Montreal	St. Magloire
Bourbeau Lake Mines, Ltd.	Noranda	McKenzie Twp.
Canadian Malartic Gold Mines Ltd.	25 King St. W., Toronto 1, Ontario	Malartic
Canadian Thorium Corp. Ltd.	80 Richmond St. W., Toronto, Ontario	Destor
Cheskirk Mines Ltd.	100 Adelaide St. W., Toronto, Ontario	Rouyn Twp.
Chimo Gold Mines Ltd.	25 Adelaide St. W., Toronto, Ontario	Vauquelin Twp.
Croitor Pershing Mines Ltd.	199 Bay St., Toronto, Ontario	Pershing Twp.
D'Eldona Gold Mines Ltd.	67 Richmond St. W., Toronto, Ontario	Poirier Twp.
Dome Exploration Co. (Quebec) Ltd.	Bourlamaque	Louvicourt Twp.
East Bay Gold Ltd.	14 C Avenue, Noranda	Vimy Area
Eastville Gold Mines Co. Ltd.	132 St. Jacques Ouest, Montreal	Courville
East Malartic Mines Ltd.	199 Bay St., Toronto, Ontario	Fourniere Twp.
Elder Mines & Developments Ltd.	44 King St. W., Toronto, Ontario	Noranda
Eldrich Mines Ltd.	44 King St. W., Toronto, Ontario	Duprat
Elk Lake Mines Ltd.	85 Richmond St. W., Toronto, Ontario	Destor Twp.
Elvue Mines Ltd.	121 Richmond St. W., Toronto, Ontario	Duprat
Gamma Mines (Quebec) Ltd.	Bourlamaque	Bourlamaque
Lamaque Mining Co. Ltd.	Bourlamaque	Bourlamaque
Leitch Gold Mines Ltd.	12 Richmond St. E., Toronto, Ontario	Wawagosic
Lenmac Mines Ltd.	85 Richmond St. W., Toronto, Ontario	Gand Twp.
Louvicourt Goldfields Corporation	100 Adelaide St. W., Toronto, Ontario	Bourlamaque
Malartic Goldfields Ltd.	Halet	Fourniere Twp.
Murban Gold Mines Ltd.	Halet	Dubuisson Twp.
Marcoland Mines Ltd.	201 - 21ème Avenue, Quebec	Landrienne Co.
Montclair Mining Corp. Ltd.	252 rue, Murdoch, Noranda	Laverlocher
Nemrod Mining Co., Ltd.	132 St. James St. W., Montreal	Louvicourt
New Senator-Rouyn Ltd.	Box 428, Noranda	Noranda
Norbeau Mines Ltd.	199 Bay St., Toronto, Ontario	McKenzie Twp.
Norlantic Mines Ltd.	Halet	Malartic
Northern Exploration Ltd.	265 Craig St. W., Montreal	Landrienne Twp.

List of Operators of Gold Mines, 1961 — Continued

Name	Head or executive office address	Location
(b) Gold Quartz Mines—Continued		
Quebec—Concluded:		
Northeast Exploration Co.	574—1st St., Chibougamau	Bourbeau Lake
O'Brien Gold Mines, Ltd.	Cadillac	Cadillac Twp.
Opemisca Explorers Ltd.	132 St. James St. W., Montreal	L'Esperance
Perron Gold Mines Ltd.	200 Bay St., Toronto, Ontario	Abitibi
Pitchvein Mines Ltd.	82 Government Road, Kirkland Lake	Dasserat
Porcupine Prime Mines Ltd.	85 Richmond St. W., Toronto, Ont.	Fournière Twp.
Quebelle Mines Ltd.	Cedar Rapids	Cedar Rapids
Rocdor Mines Ltd.	Val D'Or	Dubuisson Twp.
Sigma Mines (Quebec) Ltd.	Bourlamaque	Bourlamaque
Sullivan Consolidated Mines Ltd.	1403—Aldred Building, Montreal	Dubuisson Twp.
Tribag Mining Co. Ltd.	44 King St. W., Toronto, Ontario	Rouyn
Twentieth Century Mining	80 Richmond St. W., Toronto, Ontario	Pershing Twp.
Tyndall Explorations Ltd.	85 Richmond St. W., Toronto, Ontario	Beauchastel Twp.
Ultra Shawkey Mines Ltd.	80 King St. W., Toronto, Ontario	Godfrey Twp.
Union Mining Corp.	1374 Sherbrooke St. W., Montreal	Bourlamaque Twp.
Valco Mines Co.	115 Rue, St. Pierre, Quebec	Malartic
Vallant Gold Mines Ltd.	294 Portage Ave., Winnipeg, Manitoba	Thiémont Twp.
Verona Rock Products Ltd.	357 Bay St., Toronto, Ontario	Beauchastel Twp.
Villemaque Goldmines Ltd.	11 Adelaide St. W., Toronto, Ontario	Bourlamaque Twp.
Wasamac Mines Ltd.	199 Bay St., Toronto, Ontario	Beauchastel Twp.
Ontario:		
Porcupine District		
Aunor Gold Mines Ltd.	44 King St. W., Toronto	Timmins
Broulan Reef Mines Ltd.	80 Richmond St. W., Toronto	Whitney Twp.
Buffalo Ankerite Gold Mines Ltd.	South Porcupine	Deloro Twp.
Carium 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	Histop and Tisdale Twps.
Hugh-Pam Porcupine Mines Ltd.	80 Richmond St. W., Toronto	Whitney Twp.
McIntyre Porcupine Mines Ltd.	Schumacher	Schumacher
Pamour Porcupine Mines Ltd.	Bank of Nova Scotia Bldg., Toronto	Whitney Twp.
Paymaster Consolidated Mines Ltd.	Box 100, South Porcupine	Deloro and Tisdale Twps.
Preston Mines Ltd.	335 Bay St., Toronto	South Porcupine
Kirkland Lake District		
Kelkirk Mines Ltd.	1112 Star Building, Toronto	Kirkland Lake
Kirkland Minerals Corp., Ltd.	160 Bay St., Toronto	Teck Twp.
Lake Shore Mines Ltd.	199 Bay St., Toronto	Kirkland Lake
Macassa Mines Ltd.	85 Richmond St. W., Toronto	Kirkland Lake
Sylvanite Gold Mines Ltd.	Box 670, Kirkland Lake	Teck Twp.
Teck-Hughes Gold Mine Ltd., The	14 Finkle St., Woodstock	Kirkland Lake
Upper Canada Mines Ltd.	250 University St., Toronto	Gauthier Twp.
Wright-Hargreaves Mines Ltd.	199 Bay St., Toronto	Kirkland Lake
Northgate Exploration Ltd.	25 Melinda St., Toronto	Kirkland Lake
Larder Lake District		
Kerr-Addison Gold Mines Ltd.	44 King St. W., Toronto	McGarry Twp.
Tresdor Larder Mines Ltd.	24 King St. W., Toronto	McGarry Twp.
Candore Explorations Ltd.	25 Adelaide St. W., Toronto	Larder
Sudbury District		
Tlonaga Gold Mines	Kukatash	Horwood Lake
Renabie Mines Ltd.	85 Richmond St. W., Toronto	Sudbury
Algoma District		
Pick Mines Ltd.	80 King St. W., Toronto	Algoma
Thunder Bay District		
Leitch Gold Mines Ltd.	12 Richmond St. E., Toronto	Beardmore
Little Long Lac Gold Mines Ltd.	199 Bay St., Toronto	Errington Twp.
MacLeod-Cockshutt Gold Mines Ltd.	199 Bay St., Toronto	Geraldton
Consolidated Mosher Mines Ltd.	199 Bay St. W., Toronto	Long Lac
Kenora District		
Consolidated Golden Arrow Mines Ltd.	25 Adelaide St. W., Toronto	Dogpaw Lake
Cone, R.C.	Mine Centre	Shoal Lake
Purdex Minerals Ltd.	25 Adelaide St. W., Toronto	Ewart Twp.
Pantan Mines Ltd.	73 Adelaide St. W., Toronto	Tabor Lake

List of Operators of Gold Mines, 1961 - Continued

Name	Head or executive office address	Location
(b) Gold Quartz Mines—Concluded		
Ontario—Concluded:		
Patricia District		
Abino Gold Mines Ltd.	25 Adelaide St. W., Toronto	Balmer Twp.
Ava Gold Mining Co. Ltd.	320 Bay St., Toronto	Red Lake
Campbell Red Lake Mines Ltd.	50 King St. W., Toronto	Balmer Twp.
Cochenour Willans Gold Mines Ltd.	150 Eglinton Ave. E., Toronto	Dome Twp.
Craibbe-Fletcher Gold Mines Ltd.	25 Adelaide St. W., Toronto	Red Lake
Dickenson Mines Ltd.	145 Yonge St. W., Toronto	Balmer Twp.
McKenzie Red Lake Gold Mines Ltd.	199 Bay St., Toronto	McKenzie Island
Madsen Red Lake Gold Mines Ltd.	55 Yonge St., Toronto	Heyson Twp.
Pickle Crow Gold Mines, Ltd.	11 Adelaide St. W., Toronto	Connell Twp.
McFinley Red Lake Gold Mines Ltd.	199 Bay St., Toronto	McKenzie Island
Young, H.G., Mines Ltd.	80 Richmond St. W., Toronto	Balmer Twp.
Manitoba:		
Explorers Alliance Ltd.	100 Adelaide St. W., Toronto, Ontario	Herb Lake
Forty-Four Mines Ltd.	237 Curry Bldg., Winnipeg	Rice Lake
San Antonio Gold Mines Ltd.	237 Curry Bldg., Winnipeg	Bissett
Saskatchewan:		
Contact Gold Mines Ltd.	1168 Albert St., Regina	La Ronge
Studer Mines Ltd.	201 Canada Bldg., Prince Albert	Sulphide Lake
British Columbia:		
Allied Mining Services Ltd.	425 Howe St., Vancouver	Tofino
Bermah Mines Ltd.	850 W. Hastings St., Vancouver	Stewart
Bralorne—Pioneer Mines Ltd.	355 Burrard St., Vancouver	Bralorne
Cariboo Gold Quartz Mining Co. Ltd.	675 W. Hastings St., Vancouver	Cariboo
Consolidated Mining & Smelting Co. Ltd.	Trail	Skeena
Fairview Mining Co. Ltd.	Wallace, Idaho, U.S.A.	Csoyoos
French Mines Ltd.	675 W. Hastings St., Vancouver	Csoyoos
Graham, W.B.	Box 63, Hedley	Csoyoos
Kelowna Mines Hedley Ltd.	Hedley	Csoyoos & Slocan
Kootenay Belle Mining Co.	Shoreacres	Sheep Creek
McKinney Gold Mines	355 Burrard St., Vancouver	Greenwood
Hurley River Mines Ltd.	Lillooet	Lillooet
Rayrock Mines Ltd.	25 Adelaide St. W., Toronto, Ontario	Bridge River
White Lease, D.H., Norcross	Nelson	Blewett
Northwest Territories:		
Akaiicho Yellowknife Gold Mines Ltd.	25 King St. W., Toronto, Ontario	Yellowknife
Consolidated Mining & S. Co. of Canada, Ltd.	Trail, British Columbia	Yellowknife
Cons. Discovery Yellowknife Mines Ltd.	25 Adelaide St. W., Toronto, Ontario	Discovery
Giant Yellowknife Gold Mines Ltd.	25 King St. W., Toronto, Ontario	Yellowknife
Ormsby Mines Ltd.	25 Adelaide St. W., Toronto, Ontario	Yellowknife
Taurcanis Mines Ltd.	25 Adelaide St. W., Toronto, Ontario	Matthews Lake
Yukon:		
Klondike Lode Gold Mines Ltd.	837 W. Hastings St., Vancouver	Klondike
(c) Copper-Gold-Silver Mines		
Newfoundland:		
Atlantic Coast Copper Corp. Ltd.	330 Bay St., Toronto, Ontario	Springdale
Maritimes Mining Corp., Ltd.	330 Bay St., Toronto, Ontario	Tilt Cove
British Newfoundland Exploration Ltd.	St. Johns	Labrador
Nova Scotia:		
King Copper Mining Corp.	1519 Pine Ave. W., Montreal, Quebec	Oxford
New Brunswick:		
Anaconda Co. (Canada) Ltd.	8th Street, New Toronto, Ontario	Bathurst
Chesterville Mines Ltd.	25 Adelaide St. W., Toronto, Ontario	Northumberland
Clearwater Mines Ltd.	Box 520, Bathurst	Bathurst
Consolidated Mining & Smelting Co. Ltd.	Trail	Wedge Mine
Heath Steele Mines Ltd.	Box 280, Newcastle	Northumberland
Kenneco Exploration (Canada) Ltd.	25 King St. W., Toronto, Ontario	Newcastle
Mogul Mining Corp. Ltd.	25 Adelaide St. W., Toronto, Ontario	Gloucester
New Alger Mines Ltd.	80 Richmond St. W., Toronto, Ontario	Northumberland
Quebec Smelting & Refining Ltd.	215 St. James St. W., Montreal, Quebec	Gloucester
Roche Long Lac Gold Mines Ltd.	372 Bay St., Toronto, Ontario	Bathurst

List of Operators of Copper-Gold-Silver Mines, 1961 - Continued

Name	Head or executive office address	Location
(c) Copper-Gold-Silver Mines - Continued		
Quebec:		
Acadia Uranium Mines Ltd.	62 Richmond St. W., Toronto, Ontario	Chibougamau
Alcourt Mines Ltd.	1024-85 Richmond St. W., Toronto, Ontario	Cavalier Twp.
Alsab Mines Ltd.	215 St. James St. W., Montreal	Demain Twp.
Amalgamated Mining Development Corp.	2075 Mansfield St., Montreal	Scott Twp.
Amalgamated Larder Mines Ltd.	1616-44 King St. W., Toronto, Ontario	Garthby Twp.
Americ Mines	1255 Phillips Square, Montréal, Québec	Guercheville Twp.
Anaconda Company (Canada) Ltd., The	8th. Street, New Toronto, Ontario	Eastern Quebec
Area Mines Limited	44 King St. W., Toronto, Ontario	Aloegny Twp.
Asarco Exploration Co. of Can. Ltd.	1004 Royal Bank Bldg., Toronto, Ontario	Inconnu Lake
Augustus Exploration Limited	1600-100 Adelaide St. W., Toronto, Ontario	Duprat Twp.
Barry Copper Mines Ltd.	550 Sherbrooke St. W., Montreal	Montray Twp.
Baska Uranium Mines Limited	2100 Montague St. Regina, Saskatchewan	Rainboth Twp.
Bateman Bay Mining Co.	100 Adelaide St. W., Toronto, Ontario	Chibougamau
Beattie-Duquesne Mines Ltd.	406-320 Bay St. Toronto, Ontario	Duparquet Twp.
Big Town Copper Mines Ltd.	132 St. James St. W., Montréal, Québec	Abitibi Territory
Bonwitha Mining Co. Ltd.	62 Richmond St. W., Toronto, Ontario	Duverney Twp.
Bracemac Mines Ltd.	801-347 Bay St., Toronto, Ontario	Galinee Twp.
Bruneau Mines Ltd.	5927 Des Ecoles, Montreal	Bruneau Twp.
Burbank Minerals Ltd.	85 Richmond St. W., Toronto	Beauchastel Twp.
Caesar Minerals Ltd.	100 Adelaide St. W., Toronto	Boivin Twp.
Canadian Shield Mining Corp.	5 Northcote Rd., Hampstead	Preissac Twp.
Campbell Chibougamau Mines Ltd.	Box 134, Chibougamau, Quebec	Obalski Twp.
Candore Explorations Ltd.	25 Adelaide St., Toronto, Ontario	Dussieux Twp.
Canol Metal Mines Ltd.	25 Adelaide St. W., Toronto, Ontario	Joutel Twp.
Cartier Quebec Explorations Ltd.	405-25 Adelaide St. W., Toronto, Ontario	Cavalier Twp.
Central Porcupine Mines Ltd.	302-100 Adelaide St. W., Toronto, Ontario	Daniel Twp.
Chesterville Mines Ltd.	405-25 Adelaide St. W., Toronto, Ontario	Frotel Lake
Chib-Kayrand Copper Mines Ltd.	80 Richmond St. W., Toronto, Ontario	Obalski Twp.
Chiboug Copper Corp. Ltd.	302-215 St. James St. W., Montréal, Québec	Levy Twp.
Chibougamau Jaculet Mines Ltd.	1107-55 Yonge St., Toronto, Ontario	McKenzie Twp.
Chibougamau Mining & Smelting Co. Inc.	55 Yonge St., Toronto, Ontario	Chibougamau
Conagami Mines Ltd.	85 Richmond St. W., Toronto, Ontario	Galinee
Coniska Copper Mines Ltd.	85 Richmond St. W., Toronto, Ontario	Daubree
Consolidated Mogul Mines Ltd.	405-25 Adelaide St. W., Toronto, Ontario	Broughton Twp.
Consolidated Vauze Mines Ltd.	1821-44 King St. W., Toronto, Ontario	Dufresnoy Twp.
Consolidated Zinc Corp. of Canada Ltd.	421 Dominion Square Bldg., Montréal, Québec	Noranda
Continental Copper Mines Ltd.	702-220 Bay St., Toronto 1, Ontario	Dufresnoy Twp.
Conwest Exploration Company Ltd.	Spencerville Ontario	Gaspé
Copper Rand Chibougamau Mines Ltd.	1107-55 Yonge St., Toronto, Ontario	McKenzie Twp.
Copper Prince Mines Ltd.	62 Richmond St. W., Toronto, Ontario	Fiedmont Twp.
Copper Stream Mines Ltd.	266 Notre Dame St. W., Montreal, Que.	Fiquery Twp.
D'Aragon Mines Ltd.	702-220 Bay St., Toronto, Ontario	Bourlamaque Twp.
Dauphin Iron Mines Ltd.	Box 237 Chibougamau, Quebec	Chibougamau
Denison Mines Ltd.	360 Bay St. Toronto, Ontario	Louvicoourt Twp.
Developers Entente of Canada Ltd.	185 Bay St. Toronto, Ontario	Duprat
Deranco Mines Ltd.	911-25 Adelaide St. W., Toronto, Ontario	Abitibi
DuMaurier Mines Ltd.	1024-85 Richmond St., Toronto, Ontario	Berthiaume Twp.
Duvan Copper Company Ltd.	295-265 Craig St. W., Montréal, Québec	Desmeuloyes Twp.
Eastern Opemiska Mines	550 Sherbrooke St. W., Montréal, Québec	Rohault Twp.
East Sullivan Mines Ltd.	507 Place d'Armes, Montréal, Québec	Val d'Or
East Trinity Mining Corp.	1024-85 Richmond St. W., Toronto, Ontario	Joutel Twp.
Estate Projects Ltd.	25 King St. W., Toronto, Ontario	Ste. Helene Twp.
Fah Metal Mines Ltd.	405-25 Adelaide St. W., Toronto, Ontario	Urban Twp.
Federal Chibougamau Mines Ltd.	372 Bay St. Toronto, Ontario	Obalski Twp.
Foreign Exploration Corp. Ltd.	121 Richmond St. W., Toronto, Ontario	St. Helene Twp.
Fundy Bay Copper Mines Ltd.	607-320 Bay St., Toronto, Ontario	Frotel Lake
Gabbro Syndicate	25 Adelaide St. W., Toronto, Ontario	Frotel Lake
Gagnon Frère	1006-25th. St., Quebec	Chateau-Richer
Galloway Chibougamau Mines Ltd.	486 St. John St., Montreal	South Chibougamau
Gaspe Copper Mines Ltd.	44 King St. W., Toronto, Ontario	Murdochville
Giant Bachelor Mines Ltd.	550 Sherbrooke St. W., Montreal	Montray Twp.
Gibson Mines Ltd.	215 St. James St. W., Montreal, Que.	Barraute Twp.
Granwick Mines Ltd.	80 King St. W., Toronto, Ontario	Rouyn Twp.
Harrison Minerals	160 Bay St. Toronto, Ontario	Galinee Twp.
Greek Canadian Mines Ltd.	740 Midland Ave., Scarboro, Ont.	Pascal Twp.
Hastings Mining & Development Co. Ltd.	507 Place d'Armes, Montreal, Que.	Stratford Twp.
Head of the Lakes Iron Ltd.	366 Bay St. Toronto, Ontario	Subercasse Twp.
Horn Gaspe Mines Ltd.	335 Bay St. Toronto, Ontario	Holland Twp.
Hoyle Mining Company Ltd.	2200-25 King St. W., Toronto, Ont.	Levy Twp.
Hudson Bay Exploration & Development Co. Ltd.	500 Royal Bank Bldg., Winnipeg, Man.	Lafamme River
Hydra Explorations Ltd.	100 Adelaide St. W., Toronto, Ontario	Daniel Twp.
Hygold Mines Ltd.	357 Bay St. Toronto, Ontario	Gand Twp.
Icon Syndicate	11 Adelaide St. W., Toronto, Ontario	Rasles Twp.
Invex Corporation Ltd.	24 King St. W., Toronto, Ont.	Rouyn Twp.
Iso Mines Ltd.	366 Bay St. Toronto, Ontario	Galinee Twp.
Jacobus Mining Corp. Ltd.	405-25 Adelaide St. W., Toronto, Ont.	Sauve Twp.
Jellicoe Mines (1939) Ltd.	244 Bay St., Toronto, Ont.	Galinee Twp.
Jomac Mines Ltd.	85 Richmond St. W., Toronto, Ontario	Duprat Twp.
Jowsey, F.H.	324-12 Richmond St. E., Toronto, Ont.	Montviel Twp.
Kateri Mining Co. Ltd.	62 Richmond St. W., Toronto, Ontario	Senneville Twp.
Kelly-Desmond Mining Corp. Ltd.	1910 Royal Bank Bldg., Toronto, Ont.	Ste. Helene Twp.
Keneco Explorations (Canada) Ltd.	25 King St. W., Toronto, Ont.	Abitibi
Kenville Gold Mines	357 Bay St. Toronto, Ontario	Rainboth Twp.
Kerr-Addison Gold Mines Ltd.	44 King St. W., Toronto, Ontario	Abitibi
Korich Mining Company	407-19 Melinda St., Toronto, Ont.	Galinee Twp.
La-Chib Mines Ltd.	302-215 St. James St. W., Montreal, Que.	Obalski Twp.
Lake Dufault Mines Ltd.	2200-25 King St. W., Toronto, Ont.	Dufresnoy Twp.
Lamaque Exploration Co. Ltd.	Bourlamaque, Que.	Mattagami
Larum Mines Ltd.	357 Bay St. Toronto, Ontario	Galinee Twp.

List of Operators of Copper-Gold-Silver Mines, 1961 - Continued

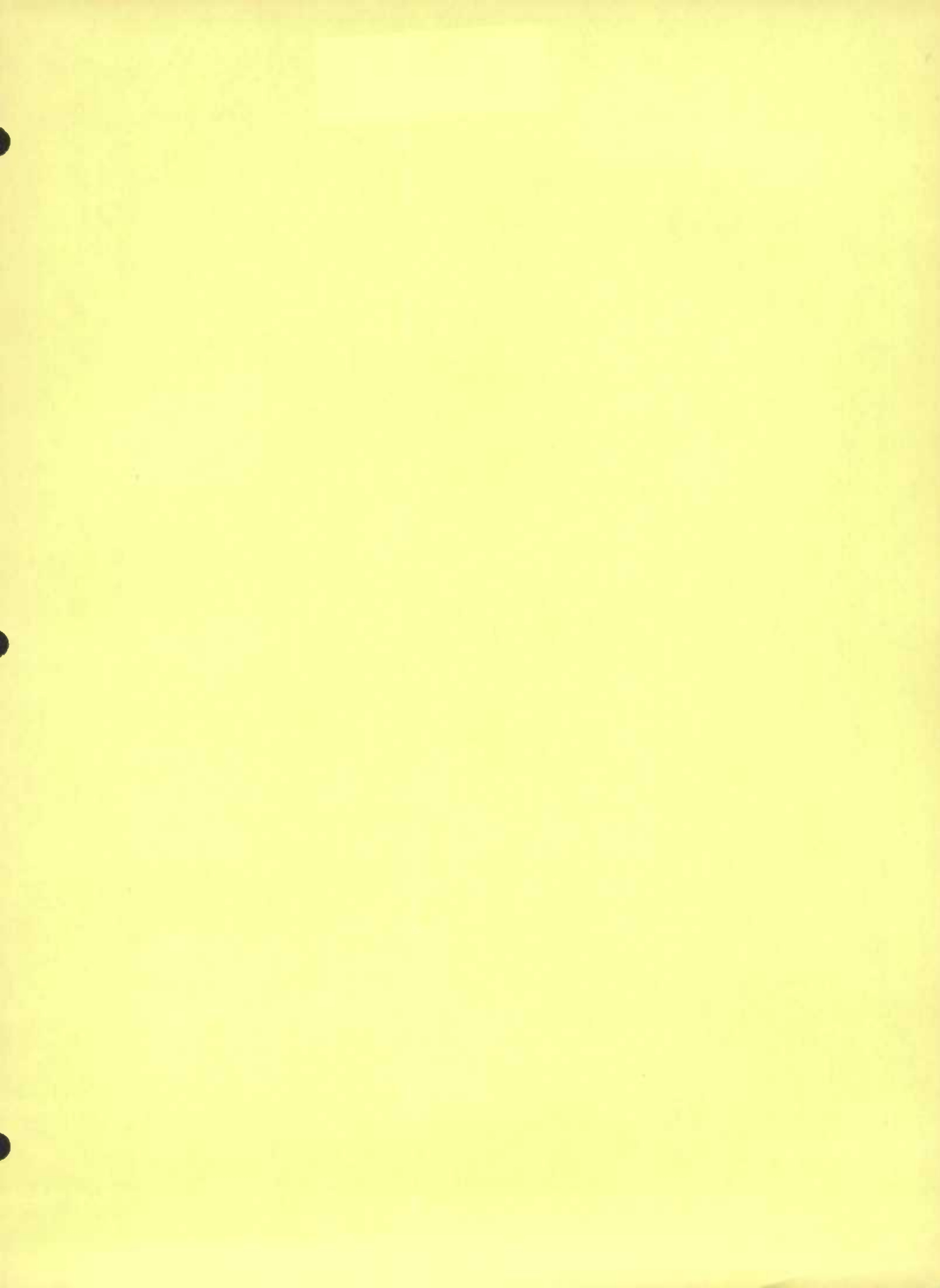
Name	Head or executive office address	Location
(c) Copper-Gold-Silver Mines - Continued		
Quebec - Concluded:		
Lavolette Mining & Metallurgical Corp.	5083 St. Denis, Montreal	Frontenac
Leitch Gold Mines Ltd.	12 Richmond St. E., Toronto, Ont.	Wawagasic
Lempira Mines Ltd.	120 Cathcart St., Montreal	Roy Twp.
Lyndhurst Mining Company Ltd.	1700-360 St. James St. W., Montreal, Que.	Guercheville Twp.
Macassa Mines Ltd.	85 Richmond St. W., Toronto, Ont.	Carpentier Twp.
Marmattagami Mines Ltd.	11 Adelaide St. W., Toronto, Ont.	Mattagami
Matachewan Consolidated Mines Ltd.	55 Yonge St. Toronto, Ontario	Huguette Lake
Mattagami Explorers Corp.	260 Notre Dame St. W., Montreal, Que.	Isle-Dieu Twp.
McWatters Gold Mines Ltd.	25 Adelaide St. W., Toronto, Ont.	Haig Twp.
Merrill Island Mining Corp.	700-455 Craig St. Montreal, Que.	Chibougamau Twp.
Mespi Mines Ltd.	1702-80 Richmond St. W., Toronto, Ont.	Dufresnoy Twp.
Mid Chibougamau Mines Ltd.	700-455 Craig St. W., Toronto, Ont.	Chibougamau
Mile 18 Mines Ltd.	62 Richmond St. W., Toronto, Ont.	Berthiaume Twp.
Miller Copper Mines Ltd.	56-1610 Sherbrooke St. W., Montreal, Que.	Holland Twp.
Mining Corporation of Canada Ltd.	1715-44 King St. W., Toronto, Ont.	Chibougamau
Moneta Porcupine Mines Ltd.	1505-320 Bay St., Toronto, Ont.	Galinee Twp.
Monpre Mining Company Ltd.	705-62 Richmond St. W., Toronto, Ont.	La Martiniere Twp.
Montbray Explorers Ltd.	11 Adelaide St. W., Toronto, Ont.	Montbray Twp.
Nealon Mines Ltd.	1201-80 King St. W., Toronto, Ont.	Hebecourt Twp.
Negor Mines Ltd.	1024-85 Richmond St. W., Toronto, Ont.	Daniel Twp.
New Athona Mines Ltd.	25 Adelaide St. W., Toronto, Ont.	Landrienne Twp.
Newconex Ltd.	8 King St. E., Toronto, Ont.	Preissac Twp.
New Hosco Mines Ltd.	906-357 Bay St., Toronto, Ont.	Daniel Twp.
New Jason Mines Ltd.	50-80 Richmond St. W., Toronto, Ont.	Galinee Twp.
Newlund Mines Ltd.	44 King St. W., Toronto, Ont.	Subercase Twp.
Newmont Mining Corp. of Canada Ltd.	906-211 Portage Ave., Winnipeg, Man.	Mattagami Area
New West Amulet Mines Ltd.	244 Bay St., Toronto, Ont.	Duprat Twp.
Nicupt Mines Ltd.	83W - 1st Ave., Amos, Que.	Montauban
Nighten Mines Ltd.	405-25 Adelaide St. W., Toronto, Ont.	Carpiquet Twp.
Nipiron Mines Ltd.	302 Bay St., Toronto, Ont.	Subercase Twp.
Nipissing Mines Co. Ltd.	55 Yonge St. Toronto, Ont.	Huguette Lake
Noranda Mines Ltd.	44 King St. W., Toronto, Ont.	Noranda
Normetal Mining Corp. Ltd.	1715-44 King St. W., Toronto, Ont.	Desmeloizes Twp.
Norque Copper Mines Ltd.	1702-80 Richmond St. W., Toronto, Ont.	Duprat Twp.
Northern Quebec Explorers Ltd.	Amos, Que.	Lac Mattagami
North Tech Exploration Ltd.	80 King St. W., Toronto, Ont.	Galinee Twp.
North Mattagami Mines Ltd.	56-1610 Sherbrooke St. W., Montreal, Que.	Isle-Dieu Twp.
Norvalle Mines Ltd.	505-80 Richmond St. W., Toronto, Ont.	Isle-Dieu Twp.
Odyne Exp. & Div. Ltee	115-7th St. Noranda, Que.	Montbeillard
Olympia Mining Exploration Ltd.	2075 Mansfield St. Montreal, Que.	Levy
O'Leary Malartic Mines Ltd.	Box 54, Noranda, Que.	Malartic
Opemiska Copper Mines (Quebec) Ltd.	Box 12, Chapais, Que.	Levy Twp.
Orchan Mines Ltd.	1403-100 Adelaide St. W., Toronto, Ont.	Galinee Twp.
Ossisko Lake Mines Ltd.	513-11 King St. W., Toronto, Ont.	Rouyn Twp.
Paudash Mines Ltd.	85 Richmond St. W., Toronto, Ont.	Turgeon River
Philips Dodge Corp. of Can. Ltd.	300 Park Ave. New York 22, N.Y., U.S.A.	Lake Minto
Portage Island (Chibougamau) Mines Ltd.	1107-55 Yonge St. Toronto, Ont.	Roy Twp.
Prospectors Airways Company Ltd.	1616-44 King St. W., Toronto, Ont.	Abitibi
Quebec Chibougamau Gold fields Ltd.	132 St. James St. W., Montreal	McKenzie Twp.
Quebec Smelting & Refining Ltd.	302-215 St. James St. W., Montreal, Que.	Lesperance Twp.
Queensland Explorations Ltd.	160 Bay St. Toronto, Ontario	Duplessis Twp.
Quemont Mining Corp. Ltd.	1715-44 King St. W., Toronto, Ont.	Rouyn-Noranda
Radiore Uranium Mines Ltd.	509-25 Adelaide St. W., Toronto, Ont.	Isle-Dieu Twp.
Rainville Mines Ltd.	2200-25 King St. W., Toronto, Ont.	Bourlamaque Twp.
Regional Securities Corp. Ltd.	121 Richmond St. W., Toronto, Ont.	Morris Twp.
Revere Mining Corp. Ltd.	62 Richmond St. W., Toronto, Ont.	Le Tac Twp.
Rexton Mines Ltd.	68 Yonge St. Toronto	Le Tardiff Twp.
Rio Tinto Canadian Exploration Ltd.	1000-335 Bay St., Toronto, Ont.	Gaspé
Rohault Mines Ltd.	605-355 St. James St. W., Montreal, Que.	Rohault Twp.
Rouanda Mining Company	360 St. James St. W., Montreal, Que.	Ligneris Twp.
Roxford Mining Corp.	4920 Western Ave., Westmount, Que.	Roxton Twp.
Rusty Lake Mining Corp.	132 St. James St. W., Montreal, Que.	La Pause Twp.
Selco Exploration Company Ltd.	600-77 York St. Toronto, Ont.	St. Helene Twp.
Solbec Copper Mines Ltd.	507 Place d'Armes, Montreal, Que.	Stratford Twp.
Sogemines Development Co. Ltd.	1980 Sherbrooke St. W., Montreal, Que.	Marceau Twp.
South Dufault Mines Ltd.	1700-360 St. James St. W., Montreal, Que.	Rouyn Twp.
Southern Union Oils Ltd.	80 King St. W., Toronto, Ont.	La Gauchetière Twp.
Southwest Potash Corporation	25 Adelaide St. W., Toronto, Ont.	Boivin Twp.
Steerola Explorations Ltd.	Steep Rock Lake, Ont.	Newport
Strathcona Mines Ltd.	62 Richmond St. W., Toronto, Ont.	Franquet Twp.
Sunburst Exploration Ltd.	320 Bay St. Toronto, Ont.	Duprat Twp.
Tache Lake Mines Ltd.	302-215 St. James St. W., Montreal, Que.	McKenzie Twp.
Tazin Mines Ltd.	700-455 Craig St. W., Montreal, Que.	Chibougamau
Templeton Development Corp.	4747 Connaught Ave., Montreal	La Pause Twp.
Terra Nova Explorations Ltd.	10-16 Blvd. Des Capucins, Quebec, Que.	Barraute Twp.
Three Brothers Mining Exploration Ltd.	360 Bay St., Toronto, Ont.	Comporte Twp.
Trade-Horn Limited	500-160 Bay St., Toronto, Ont.	Doyon Lake
Triform Explorations Ltd.	100 Adelaide St. W., Toronto, Ont.	Barraute Twp.
Tri-Cor Mining Company Ltd.	608-80 Richmond St. W., Toronto, Ont.	Barraute Twp.
Tyrene Mines Ltd.	300 Park Ave., New York 22, N.Y.	Sakami Lake Area
Valray Explorations Ltd.	402-100 Adelaide St. W., Toronto, Ont.	Ducros Twp.
Ventures Limited	2200-25 King St. W., Toronto, Ont.	Mattagami
Voyager Explorations Ltd.	901-159 Bay St., Toronto, Ont.	Subercase Twp.
White Amulet Mines Ltd.	Noranda, Que.	Duprat Twp.
White Lake Mines Ltd.	421 Dominion Square Bldg., Montreal, Que.	Duprat Twp.
Watson Lake Mines Ltd.	225-12 Richmond St. E., Toronto, Ont.	Watson Lake
Woodson Mining Corporation	455 Craig St. W., Montreal, Que.	Fontainebleau
West Wassa Mines Ltd.	7 Adelaide St. E., Toronto, Ont.	Beauchastel Twp.
Wiltsey-Coghlan	320 Bay St., Toronto, Ont.	Rouyn Twp.

List of Operators of Copper-Gold-Silver Mines 1961 - Concluded

Name	Head or executive office address	Location
(c) Copper-Gold-Silver Mines - Concluded		
Ontario:		
Chipman Lake Mines Ltd.	25 King St. W., Toronto, Ont.	Kenora
Ethel Copper Mines Ltd.	80 Richmond St. W., Toronto	Tudhope Twp.
Geco Mines Ltd.	1715-44 King St. W., Toronto, Ont.	Manitouawadge
Kam Kotia Porcupine Mines Ltd.	25 Adelaide St. W., Toronto, Ont.	Robb Twp.
Kiro Explorations Ltd.	160 Bay St., Toronto, Ont.	Robb Twp.
Kordol Explorations Ltd.	19 Melinda St., Toronto, Ont.	Boston Creek
Maple Bay Copper Mines Ltd.	357 Bay St., Toronto, Ont.	Godfrey Twp.
Maraigo Mines Ltd.	906-11 Adelaide St. W., Toronto, Ont.	Godfrey Twp.
Maybrun Mines Ltd.	402-100 Adelaide St. W., Toronto, Ont.	Kenora
Mining Corp. of Canada, Ltd.	44 King St. W., Toronto, Ont.	Rainy River
Misema Lake Mining Corp. Ltd.	1112 Star Building, Toronto, Ont.	Larder Lake
North Coldstream Copper Mines Ltd.	44 King St. W., Toronto, Ont.	Kashabowie
Poly Ores Mining Company Ltd.	62 Richmond St. W., Toronto, Ont.	Spanish
Temagami Mining Company Ltd.	1000-11 Adelaide St. W., Toronto, Ont.	Temagami
Welsh, G.S.	62 Richmond St. W., Toronto, Ont.	Matachewan
Manitoba:		
Canorama Explorations Ltd.	104-85 Richmond St. W., Toronto, Ont.	The Pas
Hudson Bay Mining & Smelting Company Ltd.	500 Royal Bank Bldg., Winnipeg, Man.	Flin Flon
Saskatchewan:		
Hanson Mines Ltd.	2001-80 King St. W., Toronto, Ont.	Hanson Lake
Hudson Bay Mining & Smelting Co. Ltd.	500 Royal Bank Bldg., Winnipeg, Man.	Flin Flon
British Columbia:		
Bethlehem Copper Corp. Ltd.	355 Burrard St., Vancouver, B.C.	Highland Valley
Bethsaida Copper Mines Ltd.	1075 Melville St., Vancouver, B.C.	Kamloops
Cadamet Mines Ltd.	600-250 University Ave., Toronto, Ont.	Kamloops
Consolidated Mining & Smelting Co. of Canada Ltd.	Trail, B.C.	Hope & Nanaimo
Consolidated Woodgreen Mines Ltd.	204-569 Howe St., Vancouver, B.C.	Greenwood
Continental Consolidated Mines Ltd.	535 Howe St., Vancouver, B.C.	Greenwood
Copper Mountain Mines Ltd.	1500 Marine Bldg., Vancouver, B.C.	Deep Guleh
Craigmont Mines Ltd.	700 Burrard Bldg., Vancouver	Merritt
Cowichan Copper Co. Ltd.	620 Howe St., Vancouver, B.C.	Lake Cowichan
Farwest Mining Ltd.	1075 Melville St., Vancouver B.C.	Kamloops
Friday Creek Development Co. Ltd.	1030 West Georgia St., Vancouver	Similkameen
Gabbro Copper Mines Ltd.	2256 W. 12th Ave., Vancouver	Jordan River
Granduc Mines Ltd.	507-1111 W. Georgia St., Vancouver, B.C.	Leduc Glacier
Geminder Wilbur W.	Keremos	Keremos
H. & G. Mining Co.	Princeton	Princeton
Howe Sound Company, Britannia Division	500 Fifth Ave., New York 36, N.Y.	Britannia Beach
Kennco Explorations (Western) Ltd.	675 Hastings St. W., Vancouver	Skeena
Kie Mine Co. Ltd.	700 Burrard Bldg., Vancouver	Merritt
Mid-West Copper & Uranium Mines Ltd.	535 Howe St., Vancouver, B.C.	Hope
Newmont Mining Corp. of Can. Ltd.	211 Portage Ave., Winnipeg, Man.	Skeena
Noranda Exploration Co. Ltd.	2256 West 12th Ave., Vancouver	Vancouver Island
Phoenix Copper Company Ltd.	1111 W. Georgia St., Vancouver, B.C.	Grand Forks
Rio Tinto Canadian Exploration Ltd.	335 Bay St., Toronto, Ont.	Kamloops
Texada Mines Ltd.	Box 35, Vananda, B.C.	Nanaimo
Texas Gulf Sulphur Co.	230 Park Ave., New York 17, N.Y., U.S.A.	Skeena
The Granby Mining Company Ltd.	1111 W. Georgia St., Vancouver, B.C.	Allenby
Torwest Resources Ltd.	400-837 W. Hastings St., Vancouver, B.C.	Merritt
Velvet Leasers	Rossland B.C.	Trail







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