

RP 123(A)

GENERAL REPORT OF THE MINISTER OF MINES AND FISHERIES OF THE PROVINCE OF QUEBEC FOR THE YEAR ENDING JUNE 30TH 1938

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Québec 

GENERAL REPORT
OF THE
MINISTER OF MINES AND FISHERIES
OF THE
PROVINCE OF QUEBEC
FOR THE YEAR ENDING JUNE 30TH
1938



QUEBEC, December 15th, 1938.

To the Honourable E.L. Patenaude, P.C., K.C..
Lieutenant-Governor of the Province of Quebec.

Sir:-

I have the honour to submit
to you a report of the various activities of my
Department for the fiscal year 1937-38.

I have the honour to be, Sir,

Your obedient servant,

O. GAGNON,
Minister of Mines and Fisheries.

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REPORT OF THE BUREAU OF MINES OF THE PROVINCE OF QUEBEC
FOR THE FISCAL YEAR ENDING JUNE 30th, 1938

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REPORT OF THE BUREAU OF MINES OF THE PROVINCE OF QUEBEC
FOR THE FISCAL YEAR ENDING JUNE 30th, 1938

To the Honourable Onésime Gagnon, P.C., K.C.,
Minister of Mines and Fisheries,
Quebec, Que.

Sir:-

During the fiscal year 1937-38, which covers the last six months of 1937 and the first half of 1938, the mining industry of the Province of Quebec continued to progress very satisfactorily. This is particularly true of metal mining in Western Quebec where the annual production of gold, copper, silver, as well as selenium and tellurium which accompany certain of the complex ores, is constantly increasing.

The present report is submitted in conformity with article 183 of the Mining Law. It will soon be followed by the final report of Bureau of Mines entitled "Mining Industry and Statistics for the calendar year 1937", which is now in press, and in it will be found the production figures for the year 1937, various data on the year's work in the mines of the province, and general information on the mineral industry during that period. In order to complete these data so as to cover the fiscal year 1937-38, it will be sufficient to present a brief review of the mining industry during the first half of 1938, so as to bring up to date the figures and the main events of interest.

MINERAL PRODUCTION

The curve of the annual value of the products of our mineral industry continues its upward trend. Since 1933, each yearly total figures exceed the preceding ones, and in 1937 they attained an all time high of \$65,203,976, against the previous peak of \$49,755,985 which was reached in 1936.

Gold and copper are the two main items in our list of metals; in 1936 our mines produced \$23,361,682 of gold and 66,340,175 pounds of copper metals, while in 1937 the figures were:- gold \$24,694,755 and copper 94,653,135 pounds. For the first half of 1938 they were:- gold \$14,930,882 and copper 54,121,838 pounds, from which it may be estimated that for the complete current year (1938) the production of these two metals will be of the order of \$30,000,000 for gold, and 110 million pounds of copper. These figures give an idea of the rate of progression of our metal mining industry.

Table I, compiled from figures published by the Dominion Bureau of Statistics, gives the figures of production of the main metals, and minerals of the Province of Quebec, during the first six months of 1938, for comparison with the figures of the corresponding period of 1937. It will be noticed that the total value for the metal group expanded from \$17,694,635 to \$20,575,576. The non-metallics, however, show an appreciable decline of 14½ per cent.

The decrease in production sustained by the non-metallic group is, in the main, due to a diminished demand for asbestos. The shipments of fibre, which reached 197,800 tons for the first half of the year 1937, fell off to 132,191 tons for the corresponding period of 1938, a shrinkage of 33 per cent. It may be pointed out that the tonnage of the 1937 shipments was the highest in the history of our asbestos industry, exceeding by 34 per cent the previous peak, which was for the year 1929. So that the production of asbestos fibre for the first half of 1938 is a return to a normal average, rather than a disquieting decline. The asbestos industry is in a satisfactory position.

For the "Building Materials" group of mineral substances we record a small decrease, as compared with the corresponding period of 1937. The building industry has not yet regained its normality since the long period of economic depression which followed the prosperous years of 1927 to 1931. The annual value of the products of our quarries, clay and sand pits, which attained an all time high record of \$18,500,000 in 1929, has since shrunk to \$5,550,000 for the complete year 1934; and it was of the order of \$3,400,000 for the first half of 1938, leaving a large gap to recover its normal figure.

MINING OPERATIONS

The following notes are compiled from the half yearly reports of the inspectors of mines, covering the first six months of 1938.

METAL MINING:-

TABLE I

Production of the principal metals and minerals of the Province of Quebec

Substances		January 1st to June 30th, 1937	January 1st to June 30th, 1938
METALS:			
Silver (metal)	ounces	322,509	517,747
	\$	145,129	227,244
Chromite	tons	210	-----
	\$	3,286	-----
Copper	pounds	39,055,191	54,121,838
	\$	5,538,026	5,169,177
Titaniferous iron ore	tons	833	-----
	\$	5,623	-----
Gold (metal)	ounces	336,203	425,018
	\$	11,763,743	14,930,882
Selenium	pounds	99,982	109,577
	\$	171,969	191,759
Tellurium	pounds	38,882	32,294
	\$	66,877	56,514
TOTALS		\$ 17,694,653	20,575,576
NON-METALS:			
Asbestos	tons	197,800	132,291
	\$	6,678,083	5,757,453
Mineral waters	imp.gal.	36,469	35,175
	\$	6,662	5,293
Feldspar	tons	4,577	1,687
	\$	43,125	22,419
Magnesitic-dolomite	\$	340,907	261,905
Mica	pounds	670,635	194,345
	\$	61,553	40,043
Ochre and iron oxide	tons	2,155	926
	\$	36,580	22,545
Phosphate	tons	-----	206
	\$	-----	1,826
Pyrite (sulphur contents)	tons	9,728	7,919
	\$	65,269	78,469
Quartz	tons	46,904	46,540
	\$	198,175	165,801
Soapstone	\$	11,516	7,835
TOTALS		\$ 7,441,870	6,363,589
Building materials (estimated)	\$	3,650,000	3,400,000
GRAND TOTALS		\$ 28,786,523	30,339,165

Shipments of asbestos fibre from the Province of Quebec

January 1st to June 30th

1937 and 1938

Grouping of grades	First six months 1937		First six months 1938	
	Tons	Value \$	Tons	Value \$
Crudes	1,974	464,258	1,266	389,470
Fibres	90,517	4,483,226	81,039	4,478,540
Shorts	105,309	1,730,599	49,986	889,443
TOTALS	197,800	6,678,083	132,291	5,757,453
Sand, gravel and stone (waste rock)	1,709	1,582	1,080	782
Asbestos rock hoisted to surface...	2,994,545		2,885,146	
Rock milled	2,410,531		2,399,275	

The activities of the metal mines of Western Quebec, so well marked throughout 1937, were well sustained during the first half of 1938.

The Horne mine, of Noranda Mines, Limited, was operated at its normal rate of 6,000 tons a day. In addition to mining and hoisting, the development work by underground workings and diamond drilling, were well maintained, particularly between 3,000-ft and 4,000-ft levels.

Waite-Amulet Mines, Limited, operated its two mines, Waite and Amulet. The Waite is hoisting 100 tons a day of high grade copper ore, which is shipped directly to the Noranda smelter. Amulet mine is producing, on a footing of 400 tons a day, a complex ore of zinc and copper, from which two concentrates are made in the Amulet mill, of zinc and of copper respectively. In June 1938 the construction of an aerial tramway was being speedily carried out, to connect the shaft "F", of the Waite mine with the Amulet mill. It is expected to complete it by October, when the production of the Waite mine will be increased to 500 tons a day.

It is interesting to note that diamond drilling carried out on the property held by Lake Dufault Mines, Limited, which adjoins, to the east, the Amulet property, has revealed the presence of a copper ore-body at a depth of 1,000 feet. Drilling carried out on Amulet ground, has proved the extension of these deposits on that property, where the mineralization appears to be quite important.

At the Aldermac mine, the production of 1,000 tons a day, of an ore containing iron pyrites and copper, is steadily maintained. The pyrite is stacked up, awaiting the construction of a plant to produce elemental sulphur. The copper concentrate is shipped to a smelter.

The Normetal mine was operated without interruption, the mill treating 250 tons a day of a complex ore of copper and zinc.

All the mines above enumerated operate on complex ores, consisting of gold bearing sulphides, yielding base metals, copper, zinc and occasionally selenium and tellurium, as well as the precious metals, gold and silver. The mines operating on gold-quartz ore bodies have also been very active. Several new ones reached the production stage during the first half of 1938, while others considerably increased their production.

The mill at the Arntfield mine, in Beauchastel township, has been treating 250 tons a day, having been stepped up to that figure by additional machinery.

The Halliwell mine, in Beauchastel township, operated by Halliwell Gold Mines, Limited,

shipped some ore, between April and June, to the Arntfield mill. The Halliwell mine, so far, has blocked out an ore body, high in gold, to which is associated some bismuth, but too small to justify the erection of a mill.

The Powell mine, of Powell Rouyn Gold Mines, Limited, has increased its production from 250 tons a day in 1937 to 500 tons in March 1938. This ore is trucked directly from the mine to the Noranda smelter.

The new roasting plant at the Beattie mine, which enables to treat all the ore at the mine itself instead of shipping part of it to United States, gives entire satisfaction and a very appreciable saving is thus effected on the cost of producing gold.

At the Lapa-Cadillac mine the erection of a mill has been started, of a 250 tons a day capacity. The flow sheet comprises concentration and amalgamation, but provisions have been made for the addition, later on, of a cyaniding plant.

The Cadillac O'Brien mine produces and treats 170 tons a day. The No.2 shaft is being deepened from 1,540 feet to 2,040 feet. It cuts No.4 vein at a depth of 1,800 feet.

The mill of the Thompson-Cadillac mine now treats 200 tons a day.

At the Sladen-Malartic mine production started in January 1938. The mill has a capacity of 250 tons a day.

Towards the end of 1937 the increase, from 500 to 1,000 tons a day in the capacity of the Lamaque mill, was completed. The present actual production exceeds the rated tonnage. The Lamaque mine is now the largest producer among the gold-quartz mines of the Rouyn-Harricana mining field.

The Sigma mine is now producing at a rate of 600 tons a day. The mill-feed averages about 0.23 oz. per ton.

At the Sullivan mine, operated by the Sullivan Consolidated Mines, Limited, in Du-buisson township, important work was being carried out in view of the expansion of the mine operations. The No.1 shaft was being deepened down to the 1,150 ft. horizon in order to establish and develop five additional levels. Plans were being prepared to increase the capacity of the mill from 150 tons to 250 tons a day. In 1937 the No.1 shaft had been sunk to 860 feet, and converted into a three compartment shaft starting from the 3rd level.

In the spring of 1938, at the Payore mine, in Bourlamaque township, a mill was erected, which is now treating from 50 to 60 tons a day.

The mill at the Cournor mine treats 200 tons a day of ore from the mine, and in addition retreats some of the tailing from previous operations.

At the Lake Rose mine, in Currie township, a 25-ton mill was erected, the machinery of which was transported by aeroplane. It was started in June, and was in production at the end of the month.

At the Belleterre mine, in Guillet township, Temiscamingue county, the new shaft was sunk to 500 feet. Owing to a shortage of power the mill was stopped in November 1937, but resumed operations in the spring of 1938.

There was also great activity at all other producing gold mines:- Siscoe, Perron, Sladen Malartic, Canadian Malartic, Pan Canadian, Stadacona, McWatters, Shawkey.

Table III shows that the number of mines which contributed to the gold production during the first semester of 1938 was 25. In the corresponding period of 1937 there were 18.

Beside the work done by the producing mines, exploration and development were actively pushed on numerous mining properties, some of which have reached an advanced stage.

Francoeur Gold Mines, Limited, Beauchastel township, have started the construction of a 150 tons mill.

Abbeville Gold Mines, Rouyn township, have sunk a two-compartment shaft and started lateral workings.

The Dumico Gold Corporation, Duparquet township, has carried out a program of diamond drilling from the 350-ft. and 400-ft. levels, and have made preparations to deepen the shaft.

On the Westwood Cadillac claims, Bousquet township, a shaft has been sunk to a depth of 250 feet.

In the course of the fiscal year 1937-38, the Cassels-Duval claims were explored by Agaura Explorations, Limited, which has, on these claims, an option on a controlling number of shares. Some 25,000 feet of diamond drilling has been done on this property. It is reported that this work has indicated the presence of 600,000 tons of ore of an average tenor of \$6. Early in September 1938, the sinking of a three-compartment shaft was started on claim 57924. It is intended to reach a depth of 600 feet.

In Duverny township some development and exploration work was carried out on the property of Claverny Gold Mines, situated in the central part of the township, about 15 miles to the north-east of Amos; the erection of a head frame was started, to continue shaft-sinking. Moreover, a great deal of prospecting was carried out in the township and surrounding area.

On the property of Quebec Manitou Mines, Limited, in Bourlamaque township, a diamond drilling programme was carried out in 1937, amounting to 10,814 feet in 23 holes, which indicated the presence of lenticular bodies of zinc-gold ore, with some copper. It is a new type of mineralization for this eastern part of the Rouyn-Harricana field. A shaft was sunk, which had reached a depth of 372 feet in January 1938. During the following six months two levels were established at 200 ft. and 350 ft. horizons, and 2,500 feet of lateral workings was driven. The Company reports having developed 348,000 tons of ore carrying 11.4 per cent of zinc, 3.31 oz. silver and 0.088 oz. gold.

Wolverine, (Quebec) Mines, Limited, the property of which is situated to the South-east of, and contiguous to, the holdings of Quebec Manitou, have carried out some diamond drilling, of which two holes have indicated the presence of gold-zinc mineralization, similar to that on the Quebec Manitou property.

In Cadillac township extensive exploration and development work was carried out at the following properties:- Amm Gold Mines, Central Cadillac, Wood Cadillac, Kewagama, Pandora and Malartic Goldfields.

In Fournière township a 750-ton mill is under construction at the East Malartic mine, where, it is reported, development work has indicated the presence of ore, to the extent of one and a half million tons, of an average tenor of \$7.50 a ton, between the surface and the 670 ft. horizon.

The Calumet Mines, Limited, continued almost without interruption its diamond drilling programme started in the summer of 1937 on its property in range IV, Calumet island, Pontiac county. It is reported that the results obtained are interesting, the cores having revealed the presence of zinc-lead ores in workable deposits.

In the Eastern Townships, metal mining consisted in the continuous operation of the Eustis mine, and some prospecting for alluvial gold in the basin of the Chaudière river, and in Ditton township, Compton county.

In April 1938, the Beauce Gold Mines, Limited, started a few men working on the Famine river, a tributary of the Chaudière river.

In the spring of 1938, Messrs. Odette and Brunton started to sluice sands on the Salmon river, and Mr. Rowell on the Moe river; both streams are situated in Compton county.

At the Eustis mine, operated by the Consolidated Copper and Sulphur Company, the inclined shaft was deepened to 7,367 feet and ore was blocked out on the 7,285-ft level. On the 3,400-ft level a cross-cut is being driven to explore for the extension in depth of the old Albert mine ore-body. The production of the Eustis mine is of the order of 325 tons a day. The ore is treated by differential flotation to produce two concentrates of copper and of iron pyrites respectively.

NON-METALLIC MINERALS:-

The production of asbestos fibre for the first semester of 1938, a total of 132,291 tons, was appreciably lower than for preceding half year; the latter has established the highest record yet reached, the shipments for the last six months of 1937 having exceeded 200,000 tons.

Asbestos Corporation, Limited, during the first half of 1938, operated the following mines steadily: King, Beaver, British Canadian and Vimy Ridge. The Maple Leaf mine, which was closed down in November 1937, was not reopened.

The King mine remains the important producer of Asbestos Corporation. Since January 1st 1938, the sinking of No.3 shaft was completed to a depth of 1,153 feet. It was started about the middle of 1937 and finished early in March 1938. It is a five-compartment shaft of which two are for ore-skips; one for the cage which handles men; the fourth is a ladder compartment and the fifth is for the water and air piping, electrical wiring, and the cage counter-weight.

TABLE III

Gold and Silver production of Mines in the Province
of Quebec from January 1st to June 30th 1938
indicating the true output of each mine

Ore treated Tons	Operator	Gold (ounces)	Silver (ounces)
177,638	Aldermac	1,097	39,039
42,146	Arntfield	4,997	1,072
299,800	Beattie	33,500	3,268
120,128	Canadian Malartic	15,021	6,491
44,886	Consolidated Copper	----	5,697
32,796	Cournor	3,600	653
2,718	Halliwell	1,166	----
193,281	Lamaque	63,332	13,153
18,154	McWatters	6,054	877
1,180,000	Noranda	145,833	268,594
37,325	Normetal	574	65,421
28,570	O'Brien	22,114	2,482
2,231	Pan-Canadian	126	12
60,886	Perron	16,984	803
372	Pontiac Rouyn	24	24
59,199	Powell Rouyn	9,472	-----
-----	Randall	7	-----
32,947	Shawkey	4,927	646
105,179	Sigma	23,852	5,043
107,528	Siscoe	36,714	2,055
44,314	Sladen-Malartic	7,624	19,414
78,855	Stadacona	10,277	1,263
27,147	Sullivan	10,551	3,465
36,085	Thompson-Cadillac	5,301	215
72,273	Waite-Amulet	1,871	78,060
TOTAL		425,018	517,747

The mining method at the King is by "Block-Caving" such as used in mining the large low-grade copper deposits of Arizona. The mill-feed is at present supplied by "blocks" 502, 504, 510 and 515. Blocks 506 and 507 are being prepared. The "blocks", which cave and shatter by their own weight, are square prisms, 500 feet high and 160 feet sides.

Johnson's Company operated its two mines at Thetford and at Black Lake, respectively.

At the Thetford mine the sinking of a new five-compartment shaft was started early in the year. Its dimensions are $17\frac{1}{2}$ feet by $12\frac{1}{2}$, and in July 1st it had reached a depth of 822 feet.

At the Bell mine of Bell Asbestos Mines, Limited, much stripping was done to the west of the open-cast pit. In the open pit two steam shovels are used to load the mine cars, which are raised to the surface by an inclined tunnel. The underground workings were also actively carried on.

The Quebec Asbestos Corporation mine, at East-Broughton, was closed from January 7th to April 13th, but during that time the mill was enlarged and repaired. The building was lengthened 25 feet over the whole width of 60 feet, and the mill started again on April 15th.

From January to April 1st, the Canadian Johns-Manville operated its Danville mine four days a week. After that date the work-week was lengthened to five days.

The workings are open-cast. The cars to transport the asbestos rock from the mine to the mill are loaded with an eight cubic yard mechanical shovel. A four cubic yard shovel is used for stripping to bed rock when enlarging the workings.

At the mill a large steel plate bin was erected over the siding for the mill-tailings, which are carried by a conveyor belt. The cars to carry away the tailings to the dump are loaded directly from the bin.

Industrial limestone, industrial lime, magnesian-dolomite, feldspar, mica, ochre, silica:-

Shipments of all these mineral substances during the first half of 1938 were appreciably lower than for the corresponding period of 1937. Fortunately reports for the latter part of the semester indicate that the demand was improving, and it is probable that the production for the whole of 1938 shall not be unduly less than that for the year 1937.

The Canadian Kaolin Silica Products Company, Limited, which operates a silica mine at St-Rémi-d'Amherst has rebuilt its concentration mill, adopting mostly wet methods. It treats 500 tons a day, and was producing at full capacity at the end of the semester.

In February 1938, Iron Oxides Products, Limited, started the calcination plant erected in 1937 near an ochre deposit, which was worked by them at Lacoste, in Labelle county.

The soapstone industry of Broughton and Thetford townships is keeping up with slightly diminished activity. During the first half of 1938, the Broughton Soapstone Quarry Company, Limited, and L.C. Pharo, of Thetford, operated their respective soapstone quarries for the production of refractory blocks and pulverized talc. Each of these small plants has the machinery to cut soapstone blocks and to grind the residue.

A new venture, Baker Mining and Milling, Limited, of Mansonville, has done some diamond-drilling on a talc deposit situated on range II, of Potton township, with the intention of exploiting it. The erection of a grinding plant has been started for the production of powdered talc; a Diesel driven dynamo has been set up, as well as a jaw crusher, a hammer mill, a set of shaking screens, a gyratory crusher and other machinery.

The production of feldspar is markedly decreasing. The shipments for the first six months are very appreciably below those of the corresponding period of 1937, and the same holds true for the other non-metallic mineral substances.

BUILDING MATERIALS:-

The building permits issued in the Province of Quebec during the first six months of the year total to an aggregate of \$25,069,700, as compared with \$27,659,400 for the first half of 1937. The sales of cement amounted to 954,393 barrels, against 959,931 in 1937. The other materials which enter the composition of concrete are about the same as the 1937 quantities. The sales of clay products amounted to \$362,491, against \$386,939 in 1937.

On the other hand there was a notable increase in the quantity of building limestone, but much less granite was used in the building industry.

MINING TITLES

The following tables, compiled by the Administration Division, of which Mr. J.X. Mercier is chief, give the number of the various mining titles issued by the Bureau of Mines during the fiscal year 1937-38, as well as a tabulated statement of statutory and exploration work done on the mining claims and on lands held under development licenses. The figures for the preceding fiscal year 1936-37 are also given for comparison.

Ministère des Richesses Naturelles du Québec
SERVICE DOCUMENTATION TECHNIQUE

COMPARATIVE STATEMENT OF EXPLORATION WORK PERFORMED ON CLAIMS AND
LICENSES DURING THE CALENDAR YEARS 1931-1938

YEAR	Number of days' work	Footage of diamond drill holes
1931	124,050	23,486
1932	184,815	44,873
1933	263,900	49,889
1934	500,502	123,257
1935	543,094	146,425
1936	730,295	202,623
1937	910,088	434,903
1938 (seven months only)	459,743	309,578

COMPARATIVE STATEMENT REVENUE COLLECTED BY THE BUREAU OF MINES

Prepared by Mr. Robert Samson, Accountant

	1935-36 \$	1936-37 \$	1937-38 \$
Miner's certificates	39,185.00	72,720.00	33,500.00
Mining licenses	174,306.51	297,385.10	297,518.28
Penalties	-----	-----	3,459.00
Mining concessions	5,590.96	16,200.10	35,444.62
Transfer of titles	10,780.00	25,570.00	12,170.00
Dues on mining concessions	1,742.77	5,802.10	4,013.63
Dues on village lots	16,701.25	13,053.25	17,061.61
Dues on profits of mines	619,341.70	1,009,891.12	1,041,765.06
MISCELLANEOUS:			
Sale of maps and blue prints, etc.....	1,604.17	3,375.37	2,126.33
Mineral collections	681.86	714.50	953.05
Assay fees	3,445.82	2,611.35	1,958.38
TOTAL	873,380.04	1,447,322.89	1,449,969.96

The following is a list of the Mining Companies which were incorporated in the Province of Quebec in 1937. The number of such incorporations was 268, appreciably greater than in the preceding year, when it was 138. This increase is due to the fact that a law passed during the session of the Legislature in 1937, decreed that only companies incorporated in virtue of a provincial law could acquire mining rights in the public domain of the Province of Quebec after March 15th 1937, or which shall become part of the said domain after that date. This provision resulted in the organization of numerous companies with provincial charters.

Name of Company	Head-office	Date of incorporation	No. of Shares
Abbeville Gold Mines, Ltd.....	Montreal	Jan. 11th, 1937	4,000,000
Acme Placer Mines, Ltd.....	Montreal	May 27th, 1937	200
Admiral Cadillac (Quebec) Gold Mines, Ltd..	Montreal	July 27th, 1937	20,000
Aldermac Copper (Quebec) Corporation, Ltd..	Arntfield	July 12th, 1937	20,000
Algray Mines (Quebec), Ltd.....	Arntfield	Aug. 5th, 1937	375,000
Amity Gold Mines (Quebec), Ltd.....	Amos	Aug. 3th, 1937	20,000
Amm Gold Mines (Quebec), Ltd.....	Kewagama	June 28th, 1937	40,000
Amos Cadillac (Quebec), Ltd.....	Bousquet town- ship.....	July 20th, 1937	99,000
Amphi Gold Properties, Ltd.....	Amos	Oct. 9th, 1937	100,000
Ascot Holdings, Ltd.....	Amos	June 21st, 1937	20,000
Athlone Gold Mines, Ltd.....	Montreal	March 15th, 1937	3,000,000
Austin Rouyn Gold Mines (1937), Ltd.....	Rouyn	July 20th, 1937	20,000
Barry Lake Mining Co., Ltd.....	Quebec	Nov. 30th, 1937	1,000,000
Beattie Gold Mines (Quebec), Ltd.....	Duparquet	Aug. 17th, 1937	5,000,000
Beau Cadillac Gold Mines, Ltd.....	Montreal	Feb. 2nd, 1937	3,000,000
Beauchastel Mines, Ltd.....	Montreal	Feb. 25th, 1937	3,000,000
Beaudin Mines, Ltd.....	Quebec	Dec. 31st, 1937	100,000
Beckflo Gold Mines, Ltd.....	Montreal	Sept. 8th, 1937	40,000
Belleterre Quebec Mines, Ltd.....	Belleterre	July 12th, 1937	1,500,000
Bell Ridge Mines, Ltd.....	Montreal	Feb. 9th, 1937	3,500,000
Bidquebec Mines, Ltd.....	Rouyn	July 20th, 1937	145,000
Big Four Mining Syndicate, Ltd.....	Montreal	May 14th, 1937	15,000
Blouin Lake Gold Mines (Quebec), Ltd.....	Montreal	June 29th, 1937	4,000
Bloumaque Mining Co., Ltd.....	Montreal	Aug. 18th, 1937	20,000
Bonaventure Mining Company, Ltd.....	Montreal	April 5th, 1937	3,000,000
Bourlamaque Central Mines, Ltd.....	Montreal	March 24th, 1937	20,000
Bourlamaque Gold Mines, Ltd.....	Montreal	Feb. 27th, 1937	5,000,000
Bourlamaque Gold Ventures, Ltd.....	Montreal	Jan. 8th, 1937	2,250
Brooke Cadillac Gold Mines, Ltd.....	Montreal	April 3rd, 1937	3,000,000
Brownlee Mines (Quebec), Ltd.....	Noranda	June 29th, 1937	149,000
Bruell Gold Mines, (Quebec), Ltd.....	Montreal	June 25th, 1937	175,000
Cache d'Or Gold Mines (Quebec), Ltd.....	Val d'Or	Oct. 15th, 1937	20,000
Cadillac Goldfield, Ltd.....	Montreal	Jan. 8th, 1937	3,000,000
Calder Bousquet Holdings, Ltd.....	Montreal	Aug. 28th, 1937	20,000
Caledonia Cadillac Gold Mines, Ltd.....	Montreal	March 1st, 1937	3,000,000
Calumet Mines, Ltd.....	Montreal	July 13th, 1937	3,000,000
Cambrian Developments, Ltd.....	Montreal	Sept. 10th, 1937	19,500
Canabec Exploration Company.....	Montreal	July 2nd, 1937	100,000
Canadian Cadillac Gold Mines, Ltd.....	Montreal	Feb. 15th, 1937	3,000,000
Candalaca (Quebec) Gold Mines, Ltd.....	Montreal	July 15th, 1937	99,000
Carlson Mines, Ltd.....	Rouyn	Sept. 9th, 1937	4,000,000
Cassels Duval Mines, Ltd.....	Montreal	Feb. 25th, 1937	3,500,000
Celta Quebec Exploration Ltée.....	Montreal	June 25th, 1937	4,000
Centerline Mines, Ltd.....	Montreal	March 24th, 1937	20,000
Charlevoix Radium & General Mining Co., Ltd., (The).....	Quebec	Aug. 25th, 1937	3,000,000
Chibougamau Opemiska Explorers, Ltd.....	Montreal	Sept. 23rd, 1937	8,000
Claudor Crossroads Mines, Ltd.....	Montreal	Nov. 6th, 1937	2,000,000
Claverny Gold Mines, Ltd.....	Montreal	March 11th, 1937	3,000,000
Compagnie Belgo Québécoise de Prospection Minière, Ltée.....	Montreal	Aug. 16th, 1937	1,000
Consolidated Mining and Smelting Co. of Quebec, Ltd.....	Montreal	July 23rd, 1937	1,000,000
Consolidated Quebec Mines, Ltd.....	Launay	Oct. 18th, 1937	3,000,000
Contactalamque Gold Mines, Ltd.....	Quebec	July 20th, 1937	20,000
Coronation Cadillac Gold Mines (Quebec), Ltd.	Montreal	June 25th, 1937	149,000

Name of Company	Head-office	Date of incorporation	No. of Shares
Cournor Mining Company, Ltd.....	Montreal	Feb. 1st, 1937	3,000,000
Crow River (Quebec) Development Co., Ltd...	Montreal	Dec. 28th, 1937	20,000
Cummings-Trudel Holdings, Ltd.....	Barraute	June 23rd, 1937	20,000
Delandore-Quebec Mines, Ltd.....	Senneterre	July 26th, 1937	50,000
Desjardins Mines, Ltd.....	Rouyn	June 16th, 1937	145,000
Despina Gold Mines, Ltd.....	Montreal	March 31st, 1937	4,000,000
Dominion Lime, Ltd.....	Montreal	Dec. 13th, 1937	1,000
Donchester Mines (Quebec), Ltd.....	Montreal	Aug. 21st, 1937	4,000
Dorammar Mining Company, Ltd.....	Quebec	April 27th, 1937	145,000
Dorcu Mines, Ltd.....	La Sarre	May 13th, 1937	3,000,000
Doreva (Quebec), Ltd.....	Bousquet town- ship	July 20th, 1937	99,000
Dorex (Quebec), Ltd.....	Bousquet town- ship	July 20th, 1937	99,000
Dorosa Gold Mines, Ltd.....	Quebec	June 2nd, 1937	3,500,000
Dorval Siscoe Mines, Ltd.....	Val d'Or	July 3rd, 1937	4,000,000
Dransfield (Quebec) Mining Co., Ltd.....	Rouyn	July 30th, 1937	99,000
Dubuisson Mines (Quebec), Ltd.....	Montreal	June 25th, 1937	4,000
Dunford (Quebec) Mines, Ltd.....	Rouyn	July 23rd, 1937	20,000
Dunlop (Quebec) Mines, Ltd.....	Montreal	Aug. 18th, 1937	20,000
Duquesne-Quebec Mines, Ltd.....	Rouyn	July 26th, 1937	50,000
Durbar Mines, Ltd.....	Rouyn	July 6th, 1937	20,000
Duverny-Dalquier Gold Mines Company, Ltd...	Montreal	May 5th, 1937	3,000,000
Duverny Goldfields Corp'n.....	Montreal	Feb. 9th, 1937	3,000,000
Earlacour Gold Mines, Ltd.....	Rouyn	July 23rd, 1937	20,000
Eastmac Holdings, Ltd.....	Val d'Or	June 30th, 1937	20,000
East Rouyn (Quebec), Ltd.....	Noranda	Nov. 8th, 1937	2,500,000
Echange de Propriétés Minières de Qué- bec Inc., (L').....	Amos	Feb. 2nd, 1937	500,000
(Quebec Mining Properties Exchange Inc.)			
Elk Mudlake Mining Synd., Ltd.....	Hull	Sept. 21st, 1937	10,000
Eureka Gold Mines (Quebec), Ltd.....	Montreal	July 6th, 1937	99,000
Excelda Gold Mines, Ltd.....	Rouyn	Nov. 9th, 1937	49,995
Fabreor Ltée	Montreal	Dec. 28th, 1937	49,000
Farrar Quebec Mines, Ltd.....	Montreal	Oct. 19th, 1937	20,000
Farrell Rouyn Mines (Quebec), Ltd.....	Montreal	Aug. 30th, 1937	2,000,000
Francoeur (Quebec) Gold Mines, Ltd.....	Arntfield	July 12th, 1937	20,000
Gard Gold Mines, Ltd.....	Rouyn township.	Sept. 15th, 1937	20,000
Garth Chiboug Holdings, Ltd.....	St-Félicien ...	June 16th, 1937	20,000
Gdynia Gold Syndicate, Ltd.....	Amos	Jan. 4th, 1937	3,000
G.H. Reynolds-Quebec Gold Mines, Ltd.....	Montreal	April 9th, 1937	3,000,000
Gignac Gold Mines, Ltd.....	Rouyn	Jan. 19th, 1937	3,000,000
Gilman Exploration, Ltd.....	Montreal	April 26th, 1937	100,000
Gilson Duverny Gold Mines, Ltd.....	Montreal	April 24th, 1937	3,000,000
Gladstone Gold Mines, Ltd.....	Montreal	Feb. 19th, 1937	3,000,000
Glenrouyn Mines, Ltd.....	Montreal	March 16th, 1937	3,000,000
G.L. Mining Company, Ltd.....	Montreal	Aug. 5th, 1937	20,000
Gold Bar Mines, (Quebec), Ltd.....	Rouyn township.	July 9th, 1937	20,000
Gold Quartz (Quebec) Company, Ltd.....	Courville town- ship	July 20th, 1937	99,000
Goldstream Quebec Mining Company, Ltd.....	Rouyn	Aug. 30th, 1937	99,000
Granada Gold Mines (Quebec), Ltd.....	Rouyn	July 2nd, 1937	20,000
Granby-Kent Gold Mines, Ltd.....	Montreal	Jan. 28th, 1937	3,000,000
Grenat Canada Ltée.....	Montreal	Sept. 20th, 1937	1,000,000
(Canada Garnet Ltd.)			
Greysolon Exploration, Ltd.....	Montreal	June 18th, 1937	200
Guillet Gold Mines, Ltd.....	Rouyn	April 29th, 1937	3,000,000
Habel Montgay Mining Co., Ltd.....	Senneterre	June 30th, 1937	5,000
Haig-Duverny Gold Mines Synd., Ltd.....	Montreal	April 28th, 1937	9,999
Harpers Malartic (Quebec) Gold Mines, Ltd..	Montreal	July 8th, 1937	99,000
Havelock Development Co., Ltd.....	Montreal	March 15th, 1937	20,000
Hayes Cadillac Holdings, Ltd.....	Quebec	Aug. 3rd, 1937	4,000
Higginson Gold Mines, Ltd.....	Montreal	Feb. 15th, 1937	3,000,000
High Camp Mines, Ltd.....	Montreal	March 8th, 1937	9,000
International Mining Corporation (Quebec), Ltd.....	Montreal	Dec. 31st, 1937	20,000
Iroquois Gold Mining, Ltd.....	Montreal	Jan. 29th, 1937	5,000,000
Jacola Holdings, Ltd.....	Val d'Or	June 7th, 1937	20,000
Jessup Exploration, Ltd.....	Rouyn	July 26th, 1937	99,000

Name of Company	Head-office	Date of incorporation	No. of Shares
Joannes-Davidson Mines, Ltd.....	Montreal	Feb. 16th, 1937	3,000,000
Kanbec Gold Mines, Ltd.....	Montreal	Sept. 13th, 1937	30,000
KeKeKo (Quebec) Gold Mines, Ltd.....	Arntfield	Sept. 15th, 1937	20,000
Kewagama Gold Mines (Quebec), Ltd.....	Duparquet	Aug. 21st, 1937	5,000,000
Keyroc (Quebec) Gold Mining Co., Ltd.....	Rouyn	July 6th, 1937	149,000
Kiena Holdings, Ltd.....	Val d'Or	June 7th, 1937	20,000
Kindale Mines (Quebec), Ltd.....	Montreal	July 23rd, 1937	20,000
Kinghorn Sturgeon Holdings, Ltd.....	Val d'Or	June 21st, 1937	20,000
Kirkfield Quebec Mines, Ltd.....	Rouyn	July 30th, 1937	99,000
Kirmack Mining Company	Val d'Or	July 5th, 1937	20,000
Kongor Mines Corporation	Montreal	March 11th, 1937	3,000,000
Kotter Gold (Quebec), Ltd.....	Montreal	July 12th, 1937	40,000
Lacoma Gold Mine (Quebec), Ltd.....	Tavernier town- ship	July 9th, 1937	20,000
Lac Varsan Gold Mines, Ltd.....	Montreal	April 24th, 1937	3,500,000
Lago Gold Mines, Ltd.....	Hull	March 6th, 1937	3,000,000
Lake Dufault Mines, Ltd.....	Duparquet	Oct. 25th, 1937	3,000,000
Lake Fortune (Quebec) Gold Mines, Ltd.....	Arntfield	Aug. 10th, 1937	20,000
Lake Rose (Quebec) Mines, Ltd.....	Senneterre	June 29th, 1937	199,000
Lamaque Mining Company, Limited.....	Bourlamaque	July 18th, 1937	1,500,000
Lamont Mines, Ltd.....	Rouyn	Sept. 9th, 1937	20,000
Lapa-Cadillac Gold Mines (1937), Ltd.....	Montreal	June 11th, 1937	20,000
La Reine Holdings, Ltd.....	Dupuy	June 7th, 1937	20,000
La Roc Mines, Ltd.....	Montreal	Feb. 9th, 1937	3,000,000
La Sarre Exploration Co., Ltd.....	Montreal	July 30th, 1937	199,000
La Sarre Holdings, Ltd.....	La Sarre	June 7th, 1937	20,000
Launay Exploration Co., Ltd.....	Montreal	Oct. 2nd, 1937	99,000
Laurier Exploration Co., Ltd.....	Montreal	April 28th, 1937	4,900
Lavalie Mines (Quebec), Ltd.....	Montreal	April 17th, 1937	145,000
Lusko Gold Mines, Ltd.....	Hull	April 24th, 1937	20,000
Macaboug Gold Mines, Ltd.....	Quebec	Jan. 9th, 1937	3,000,000
Mackey Development, Ltd.....	Montreal	April 21st, 1937	20,000
Magma Mines, Ltd.....	Hull	March 20th, 1937	20,000
Malrobic Mines (Quebec), Ltd.....	Montreal	July 14th, 1937	4,000
Manitou Mines (Quebec), Ltd.....	Hull	May 28th, 1937	1,950
Maniwaki Mines, Ltd.....	Vauquelin town- ship	Aug. 20th, 1937	3,500,000
Maniwaki Molybdenum Mines, Ltd.....	Montreal	Aug. 20th, 1937	14,990
Manobec Prospectors (Quebec), Ltd.....	Noranda	Aug. 9th, 1937	20,000
Mariette Gold Mines, Ltd.....	Amos	Sept. 20th, 1937	49,999
Marjac (Duvernay) Gold Mines, Ltd.....	Quebec	Sept. 1st, 1937	99,000
Maritime Cadillac Gold Mines (Quebec), Ltd.	Montreal	July 15th, 1937	99,000
Mary-Jane Copper Gold Mines, Ltd.....	Montreal	Feb. 9th, 1937	4,000,000
Marva Gold Mines (1937), Ltd.....	Montreal	June 14th, 1937	20,000
McWatters (Quebec) Gold Mines, Ltd.....	McWatters	July 15th, 1937	20,000
Merrell Mining and Exploration Company, Ltd	Montreal	April 20th, 1937	20,000
Midway Malartic (Quebec), Ltd.....	Hull	May 31st, 1937	95,000
Mine d'Or Champlain Ltée (La).....	Arntfield	July 23rd, 1937	3,000,000
Minelands (Quebec), Ltd.....	Arntfield	July 23rd, 1937	20,000
Mineral Prospectors, Ltd.....	Montreal	Dec. 4th, 1937	20,000
Mines d'Huiles et Pétrole Tremblay-Joubert Cie, Ltée (Les).....	Montreal	May 17th, 1937	49,000
Mines d'Or Provencher Ltée (Les).....	Rouyn	March 12th, 1937	3,000,000
Mines Exploration Co., Ltd.....	Montreal	April 15th, 1937	275,000
Mines Holdings, Ltd.....	Montreal	Jan. 26th, 1937	200
Misbec Mining Company, Ltd.....	Amos	July 12th, 1937	20,000
Molybdenite Corp. of Canada, Ltd.....	Montreal	Aug. 7th, 1937	1,000,000
Molybdenum Quebec, Ltd.....	Montreal	Dec. 29th, 1937	49,000
Monarch Mines (Quebec), Ltd.....	Rouyn	July 14th, 1937	20,000
Montmagny Gold Mines, Ltd.....	Arntfield	Nov. 17th, 1937	20,000
Mooshla Gold Mines Co. (1937), Ltd.....	Montreal	June 11th, 1937	20,000
Mount Royal Mines, Ltd.....	Montreal	May 29th, 1937	3,000,000
National Malartic Mining Co., Ltd.....	Montreal	Feb. 1st, 1937	3,500,000
Nelson Gold Mines, Ltd.....	Montreal	March 25th, 1937	4,000,000
Nepton Bay Development Co., Ltd.....	Montreal	April 30th, 1937	50,000
Niagara Gold Mines, Ltd.....	Rouyn	July 23rd, 1937	99,000
Norbeau Mines (Quebec), Ltd.....	Noranda	June 16th, 1937	2,000,000
Norbec Mines, Ltd.....	Noranda	June 22nd, 1937	20,000

Name of Company	Head-office	Date of incorporation	No. of Shares
Norgold Mines (1937), Ltd.....	Montreal	June 11th, 1937	20,000
Nor-Que Developments, Ltd.....	Montreal	July 21st, 1937	50,000
Norwin Holdings, Ltd.....	Montreal	July 3rd, 1937	200
O'Hara Gold Mines, Ltd.....	Montreal	March 1st, 1937	4,000,000
O'Leary Malartic (Quebec), Ltd.....	Noranda	July 14th, 1937	20,000
Ontario Explorers, Ltd.....	Montreal	Sept. 16th, 1937	20,000
Opemiln Mining Company, Ltd.....	Montreal	July 14th, 1937	20,000
Opemiska Copper Mines (Quebec), Ltd.....	Montreal	Aug. 21st, 1937	5,000,000
Orcour Gold Mines (1937), Ltd.....	Montreal	June 14th, 1937	20,000
Oremonte Mines Inc.....	Montreal	Jan. 25th, 1937	3,000,000
Orexplorers Corporation, Ltd.....	Montreal	June 15th, 1937	20,000
Orland Gold Mines (Quebec), Ltd.....	Montreal	July 3rd, 1937	4,000
Ottmann Gold Mines, Ltd.....	Rouyn	Sept. 4th, 1937	20,000
Pamaco Mining Exploration Corp'n Ltd., of Montreal.....	Montreal	March 19th, 1937	49,990
Paquette Malartic Mines (Quebec), Ltd.....	Quebec	Aug. 3rd, 1937	4,000
Parbec Gold Mine, Ltd.....	Montreal	Sept. 13th, 1937	30,000
Pascalis Gold Mines (Quebec), Ltd.....	Montreal	Aug. 21st, 1937	3,000,000
Payore Holdings, Ltd.....	Val d'Or	June 28th, 1937	20,000
Pelletier Lake Gold Mines (Quebec), Ltd....	Montreal	Aug. 21st, 1937	4,000
Pétroles de Québec Inc. (Les).....	Quebec	Dec. 30th, 1937	50,000
Pershing Manitou Gold Mines, Ltd.....	Montreal	Jan. 27th, 1937	3,500,000
Playsafe Mines, Ltd.....	Rouyn	July 23rd, 1937	100,000
Porcupine Brismont Gold Mines, Ltd.....	Montreal	Feb. 9th, 1937	3,500,000
Powell-Rouyn Gold Mines, Ltd.....	Noranda	July 14th, 1937	1,500,000
Prospectors Airways (Quebec) Co., Ltd.....	McWatters	June 29th, 1937	20,000
Prospects Limited.....	Val d'Or	May 18th, 1937	20,000
Quebec Barlow Gold Mines, Ltd.....	Montreal	Aug. 30th, 1937	3,000,000
Québec Exploration Limitée.....	Montreal	June 22nd, 1937	4,000
Quebec Gold Spar Holdings, Ltd.....	Senneterre	July 29th, 1937	90,000
Québec Mica Compagnie Ltée.....	Quebec	July 30th, 1937	20,000
Quebec Mining Explorers, Ltd.....	Montreal	June 7th, 1937	99,900
Quebec United Mines, Ltd.....	Montreal	March 15th, 1937	4,000,000
Quemartic Mines (Quebec), Ltd.....	Montreal	Aug. 6th, 1937	20,000
Quebec Smelting & Refining Corp'n.....	Montreal	Feb. 16th, 1937	4,000
Quemont Quebec Mines, Ltd.....	Montreal	Aug. 17th, 1937	20,000
Questor Gold Mines, Ltd.....	Montreal	Feb. 1st, 1937	3,000,000
Rand Malartic Mines, Ltd.....	Malartic	March 23rd, 1937	3,000,000
Red Gold (Quebec) Mining Co., Ltd.....	Montreal	Sept. 15th, 1937	4,000
Regent Gold Syndicate, Ltd.....	Montreal	April 6th, 1937	60,000
Remo-Katrine Gold Mines, Ltd.....	Montreal	Feb. 22nd, 1937	3,000,000
Ricanaw Mines, Ltd.....	Montreal	Feb. 19th, 1937	2,000,000
Richard Mining & Development Co., Ltd.....	Montreal	May 15th, 1937	3,000,000
Rocdor Gold Mines (Quebec), Ltd.....	Val d'Or	June 28th, 1937	40,000
Rocdor Mines, Ltd.....	Val d'Or	Nov. 22nd, 1937	3,000,000
Rouleau Mines, Ltd.....	Montreal	March 25th, 1937	140,000
Rouyn Reward (Quebec), Ltd.....	Rouyn	July 26th, 1937	99,000
Rubec (Quebec) Mines, Ltd.....	Montreal	Aug. 28th, 1937	4,000
Roybell Mines, Ltd.....	Montreal	Aug. 18th, 1937	3,000,000
Sab-Lac Copper and Gold Mines, Ltd.....	Trois-Rivières.	Oct. 5th, 1937	99,900
St. James Gold Mines, Ltd.....	Montreal	March 1st, 1937	2,000,000
Saint Jude Gold Mines, Ltd.....	Montreal	March 15th, 1937	3,000,000
Seguin Consolidated Mines, Ltd.....	Montreal	Aug. 28th, 1937	3,000,000
Senim Limited.....	Amos	Dec. 28th, 1937	20,000
Senneterre Prospecting and Development Company, Ltd.....	Montreal	July 16th, 1937	20,000
Sennevar Mines, Ltd.....	Varsans township	July 12th, 1937	20,000
Senore Gold Mines, Ltd.....	Perron	June 7th, 1937	3,000,000
Sigma Mines (Quebec), Ltd.....	Bourlamaque	July 26th, 1937	1,000,000
Siscoe Extension Holdings, Ltd.....	Val d'Or	June 11th, 1937	20,000
Sladen (Quebec), Ltd.....	Montreal	Aug. 11th, 1937	20,000
Smith Tiblemont Mines, Ltd.....	Montreal	July 16th, 1937	3,000,000
Snowshoe Gold Mines, Ltd.....	Val d'Or	July 6th, 1937	3,000,000
Soma-Duvernay Gold Mines, Ltd.....	Montreal	March 1st, 1937	3,000,000
Soroda Gold Mines, Ltd.....	Quebec	June 2nd, 1937	1,000,000
Springpole Gold Mines, Ltd.....	Montreal	April 6th, 1937	4,000,000
Stadacona (Quebec) Rouyn Mines, Ltd.....	Montreal	Sept. 15th, 1937	4,000
Stanich Gold Mines, Ltd.....	Quebec	July 21st, 1937	3,000,000
Sudbury Contact Mines (1937), Ltd.....	Montreal	June 11th, 1937	20,000

Name of Company	Head-office	Date of incorporation	No. of Shares
Sullivan Bourlamaque Gold Mines, Ltd.....	Montreal	Jan. 12th, 1937	3,000,000
Taylor Cadillac Gold Mines, Ltd.....	Montreal	Jan. 19th, 1937	3,000,000
Tiblemont Siscoe Mining, Ltd.....	Montreal	Jan. 23rd, 1937	3,500,000
Turno Cadillac (Quebec), Ltd.....	Bousquet town- ship	July 20th, 1937	99,000
Val d'Oro Mines, Ltd.....	Val d'Or	Aug. 6th, 1937	149,999
Valmac Gold Mines, Ltd.....	Montreal	Jan. 25th, 1937	3,000,000
Val Malartic (Quebec), Ltd.....	Montreal	July 13th, 1937	20,000
Valpin Cadillac Mines, Ltd.....	Quebec	Jan. 26th, 1937	3,000,000
Vantage Mines (Quebec), Ltd.....	Montreal	June 15th, 1937	20,000
Varsan Gold Mines (Quebec), Ltd.....	Varsan township	July 9th, 1937	20,000
Vauquelin-Sifton Lake Mines (Quebec), Ltd...	Noranda	June 29th, 1937	149,000
Ventures (Quebec) Claims, Ltd.....	Montreal	Aug. 21st, 1937	4,000
Vicour (Quebec) Mines, Ltd.....	Rouyn	July 23rd, 1937	150,000
Waite-Amulet (Quebec), Ltd.....	Noranda	June 8th, 1937	99,000
Washington Golds, Ltd.....	Quebec	Sept. 24th, 1937	20,000
West Duvernay Gold Mines, Ltd.....	Montreal	Feb. 4th, 1937	4,000,000
White Quartz Gold Mines, Ltd.....	Montreal	Oct. 7th, 1937	20,000
Wisewill Mining Properties, Ltd.....	Amos	Dec. 29th, 1937	90,000
Wisik Holdings, Ltd.....	Val d'Or	June 7th, 1937	20,000
Wolverine (Quebec) Mines, Ltd.....	Rouyn	July 3rd, 1937	145,000
Young-Shannon (Quebec) Mines, Ltd.....	Rouyn-Dufresnoy township	Aug. 6th, 1937	20,000

GEOLOGICAL FIELD WORK

The Division of Geology of the Bureau of Mines carries out geological surveys and mapping, of areas favourable to mineralization, and studies the mineral deposits brought to light. The geologists then prepare geological maps and reports for the purpose of guiding and assisting prospectors and mine operators in their work.

Ten field parties organized for the season of 1937, under the direction of John-A. Dresser, carried out field work as follows:-

Bertrand-T. Denis - Detailed geology of the copper-zinc-gold deposits in Bourlamaque and Louvicourt townships, Abitibi county, and examination of the claims and various discoveries of the area.

I.W. Jones - Detailed study of the geological structure of the York river basin, South Gaspé county, with regard to oil possibilities of the area.

H.W. McGerrigle - Detailed work of the geological structure of the St. John river basin, South Gaspé county, with regard to the oil possibilities of the area.

G. Vibert Douglas - Examination of the metalliferous deposits of Ascot township, Sherbrooke county.

Carl Faessler - Geology of the townships of Marlow and Risborough, in the counties of Frontenac and Beauce.

Paul-E. Auger - Geological survey of the Bigniba river area, Abitibi territory.

W.W. Longley - Geological Survey of the Fraser-Laas area, Abitibi territory.

J.-W. Laverdière - Study of the geological structure of the Appalachian belt in Quebec, between Montmagny and Matane.

G.S. MacKenzie - Detailed mapping of the geology of the southwest part of Beauchastel township, Témiscamingue county.

S.H. Ross - Geology of Launay township, Abitibi county.

In order to make available without delay to the interested public the main results of several of these field parties, brief preliminary reports have been published. The final reports, accompanied by maps, plans and illustrations, are issued as soon as they are printed.

The fourteen field parties, organized for the 1938 season by Dr. J.A. Dresser, which

are at present in the field are as follows:-

Temiscamingue county

G.S. MacKenzie - Detailed geology of the eastern part of Beauchastel township.

Abitibi county

H.M. Bannerman - Detailed geology of the western part of Destor township, adjacent to Duparquet township.

Bertrand-T. Denis - Detailed geology of the central part of Louvicourt township, contiguous to the area containing the zinc-gold deposits of the Quebec Manitou Mines property.

Carl Tolman - Geology of the central part of Vauquelin township.

Abitibi Territory

W.W. Longley - Geology of the area to the west of Laurier Bay, in the Mattamagi lake region.

P.-E. Auger - Geology of an area to the east of Laurier Bay, and extending to Waswanipi river.

Saguenay county

Carl Faessler - Geology of the North Shore of the Saint-Lawrence, between Cap-des-Monts and Godbout.

Portneuf county

J.J. O'Neill and F.F. Osborne - Detailed examination of the Tétreault mine, zinc and lead ores, Montauban-Les-Mines, Montauban township.

Jacques Cartier county

T.H. Clark - Geology of Ile Jésus, with particular regard to the limestones of the island and of surroundings.

Gaspé county

I.W. Jones, H.W. McGerrigle and R.A. Brown - Geology of three contiguous areas, with regard to the possibility of the presence of oil in economic quantities.

Matane county

E. Aubert de la Rüe - Geology and mineral resources of a part of Matane county and contiguous parts of adjacent counties.

Abitibi and Temiscamingue counties

S.H. Ross and Nowers Asbury examined small mines, claims and mining properties in various parts of these two counties.

MINE INSPECTION

The Annual Report of the Bureau of Mines, entitled "Mining Industry and Statistics", contains each year a chapter on "Employment, Wages and Accidents in Mines and Quarries". Tables will be found in it regarding the labour statistics of mines and quarries for each calendar year from January 1st to December 31st.

The Bureau of Mines gives special care to the security of mine and quarry workers and to accident prevention measures, as mining operations present special dangers inherent to such conditions as:- handling of men, in and out of shafts attaining depths of 5,000 feet; rock falls in underground levels and working places; use of large quantities of explosives; gases from blasting operations.

In conformity with the Mining Law all our inspectors are mining engineers. In addition to the safety of the men in mines and quarries, they closely follow the developments of the mining industry, in order to enable the Bureau of Mines to be in a position to rapidly inform the inquiring public on the Quebec mining industry, mineral resources in general and individual mining enterprises.

The province is divided into four mining inspection districts. Mr. Eugène Larochelle, assisted by Mr. Lucien Lavigne, has charge of the Eastern Townships, including the Beauce region; Mr. R.H. Taschereau has charge of the counties of Temiscamingue and Abitibi as well as of the territory to the north of the latter county; Mr. Paul-E. Bourret has charge of the north side of the St. Lawrence and Ottawa rivers, and Mr. Henri Girard of the south shore of the St. Lawrence.

The number of mine-workers employed in the Quebec Mining Industry during the year 1937 was 23,817, a notable increase of 35 per cent as compared with the previous year; this is the highest number recorded up to the present. These figures constitute a measure of the growing progress of the industry.

In the course of the fiscal year ending June 30th 1938, the Quebec Bureau of Mines has caused the inspection to be made of 130 steam boilers used in the mines and quarries. Hoistman certificates have been issued to 114 qualified men, who underwent the necessary medical examination. In the first part of 1938 we received, from 75 mine operators, plans of all their underground workings brought up to December 31st, 1937.

During the fiscal year under review 120 mine-workers successfully passed the examination and tests after having taken the Mine Rescue and First-aid courses which several of the larger mining companies have organized in connexion with safety and accident prevention education and training. These men were granted the certificate awarded by the Bureau of Mines. The successful candidates had been trained by the following mining companies:-

First-aid certificates

Noranda Mines, Limited	66
Canadian Johns-Manville Co., Ltd	31
Total	97

Mine Rescue work and first-aid certificates

Noranda Mines, Limited	23
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DRAUGHTING AND MAP-MAKING

The draughting and mapping division is in charge of Mr. Marc Boyer, civil engineer. Nine draughtsmen are employed.

The division prepares the base-maps for the geological field parties, and after the closing of the field season compiles the maps embodying the results of the field-work and gets them ready for reproduction and printing. The following list gives the detail of the maps and drawings completed during the fiscal year to accompany the reports, which are mostly geological reports.

- 389 - Diagram, correlation of the magnets.
- 391 - Diagram, calibration of the magnets.
- 392 - Intrusion of "suzorite", Suzor township.
- 393 - Consolidated Chibougamau, 250-ft level.
- 394 - Consolidated Chibougamau, 500-ft level.
- 395 - Rangely-Wolson property, Chibougamau.
- 396 - Obalski property, Chibougamau.
- 397 - Wawbano property, Chibougamau.
- 398 - Florence River property, Abitibi.
- 399 - Quévillon Area, (preliminary), Abitibi.
- 400 - Suzor-Letondal Area, Laviolette county.
- 401 - Mining properties, Chibougamau.
- 402 - Bruneau Area, Abitibi territory.
- 403 - Sinclair creek, Bruneau township.
- 404 - Claims Chieftain, Franquet township.
- 405 - Claims Dubuisson, Desjardins township.
- 406 - Grevet Area, Abitibi.
- 407 - Simard lake area, Temiscamingue.
- 408 - Lachute area, Argenteuil.
- 409 - Sands, gravels and clays, East of Montreal.
- 411 - Ste-Anne river area, Portneuf.
- 412 - Silt bar, Bell river tributary.
- 413 - Silt bar, on Bell river.
- 414 - Consolidated Chibougamau, 250-ft level.
- 415 - Consolidated Chibougamau, 500-ft level.
- 416 - Belleterre mine, position of veins, Guillet township.
- 417 - Composite sketch map, vein No.2, Belleterre mine.

- 418 - Composite sketch map, vein No.11, Belleterre mine.
- 419 - Fraser-Bigniba area, (preliminary), Abitibi.
- 420 - Microphotograph, olivine diabase.
- 421 - Microphotograph, amphibolite.
- 422 - Magnetite with parallel quartz bands.
- 423 - Microphotograph, porphyrite dyke.
- 424 - Microphotograph, diabase dyke.
- 425 - Microphotograph, diabase and granite.
- 428 - Sand deposits, Acton township.
- 429 - Sand and gravel, Roxton township.
- 430 - Sand and gravel, vicinity St-Hyacinthe.
- 431 - Sand and gravel, vicinity St-Hilaire.
- 432 - Sand and gravel, vicinity St-Bruno.
- 433 - Sand and gravel, vicinity Mount-Johnson.
- 434 - Sand and gravel, vicinity Rougemont.
- 435 - Sand and gravel, vicinity Mount Yamaska.
- 436 - Sketch map Abitibi-Témiscamingue mining area.
- 437 - Mouth of Ste-Anne river, Portneuf.
- 438 - St-Alban land slide, Portneuf county.
- 439 - Paleozoic formations, vicinity Grondines, Portneuf.

The following geological maps, in colours, were lithographed in the course of the year, the edition of each having varied between 3,000 and 4,000 copies:-

- 342 - North Dubuisson area, Abitibi county.
- 345 - Villebon-Denain map-area, Abitibi and Pontiac counties.
- 352 - Upper York river map-area, North Gaspé county.
- 353 - Currie map-area, Abitibi territory.
- 354 - Marbleton map-area, Wolfe county.
- 355 - Guillet map-area, Témiscamingue county.
- 400 - Suzor-Letondal map area, Laviolette county.

Beside the above stated work, the Mapping Division maintains and keeps up to date, two series of tracings on linen, on one of which all the stakings of claims are recorded, and on the other are indicated the outline boundaries of the holdings of each of the mining companies. The first series comprises 280 separate tracings and the second 44. Of these tracings, 85 were compiled during the year.

From these tracings about 7,500 blue-print copies were taken, and the number of new claims recorded on them was 12,918.

The mapping division, in addition to the above work, made various drawings and plans for 140 tracings on linen, for the general use of the Bureau, and also a large mural map, in colours, showing the distribution of the economic mineral substances in the Province.

DIVISION OF STATISTICS

The preparation and compilation of the various statistics of the mineral industry, which the Bureau of Mines publishes in its Annual Report, and in the monthly and quarterly bulletins which are issued regularly, is done by a staff of three employees, who do all the collecting and the compiling of the returns from the producers. The same staff also maintains a mailing list of distribution of our publications, and sees to it that the various reports are mailed regularly, as soon as the edition is received at the Bureau of Mines, to the companies, organizations and individuals which are on the list.

This division of the Bureau of Mines works in concert, and close cooperation, with the Federal Bureau of Statistics. In order to reduce to a minimum the number of returns and reports which operators of mines and quarries must make to the various Government departments, Federal or Provincial, the Federal Bureau and the Quebec Bureau of Mines agreed, several years ago, to use the same data and information as regards the mining and mineral statistics. The Federal Bureau supplies the necessary stationery such as forms for returns and reports, printed circular letters, and envelopes, and the Provincial Bureau of Mines has charge of sending out the various forms, and of receiving the returns. The requests for reports, with the proper forms to be filled in, are addressed to the operators directly by the Quebec Bureau of Mines. The filled in forms are therefore returned, in duplicate, to the Provincial Bureau. After examining them, and if necessary, having had them completed by correspondence, we transmit one of the two copies to Federal Bureau of Statistics.

With the cooperation of our mine inspectors, in charge of the various mine inspection districts, and by constantly referring to the records of the administrative branch of the Bureau of Mines, our Division of Statistics maintains a complete and up-to-date list of operators of mines and other producers of mineral substances in the Province of Quebec. Each year, early in January, these operators or producers, be they companies or individuals, are requested to send

in the report of their operations for the preceding year.

For the purpose of the mineral statistics for the year 1937, we sent out 2,656 requests for reports. We received 2,428 answers as follows:- 1,407 returns of production or of shipments of mineral products; 307 reports of development or exploration work on non-producing mining properties; 714 statements to the effect that there had been no operations during the year. This leaves 228 requests which remained unanswered.

The statistical bulletins issued monthly and quarterly are compiled from separate returns which are sent us each month by producers of asbestos, gold, copper and silver, as well as by cement manufacturers and producers of clay products and lime. At present 47 operators are requested to make these returns. Mr. Charles Beaudet is in charge of this division.

DIVISION OF MINERALOGY AND CHEMISTRY

This division has charge of the museum, exhibitions, courses of lectures to prospectors, and of the Quebec, Montreal and Thetford-les-Mines laboratories.

Mr. Maurice Archambault, chief of the Division, reports on its activities as follows:-

MUSEUM.

The museum of the Bureau of Mines received thirty-seven new specimens during the year under review among which were:-

Sample of boulangérite, from Beauchastel township donated by Mr. W.K. Fritzsche.

Sample of refined sulphur, produced from iron pyrites from Beauchastel township, donated by Aldermac Copper Corporation, Ltd.

Six samples of crude oil from Gaspé.

EXHIBITIONS

The Bureau of Mines took part during the year in three important exhibitions as follows:-

CANADA GREAT EASTERN EXHIBITION, held at Sherbrooke, from August 28th to September 4th, 1937.

THE PROVINCIAL EXHIBITION, held at Quebec from September 3rd to 11th, 1937.

NATIONAL "PRODUCED IN CANADA", EXHIBITION, held in Montreal from November 3rd to 13th, 1937.

The number of visitors at all these exhibitions was notably greater than in the past few years, and the general public seems to take a keener interest in mining matters.

LECTURES TO PROSPECTORS.

During the year, the Bureau of Mines had series of lectures on prospecting delivered in various centres of the Province. These courses are free and open to the public.

Lectures, to the number of 315, were given in 27 places, distributed in 17 counties of the Province. The summarized table shows that there was a total attendance of 13,138 at these lectures, representing approximately 1,500 persons.

In connexion with these courses on prospecting, and as a means of promoting mining education in the Province, mineral collections and literature have been supplied, at a nominal cost, as follows:- 1,093 collections of minerals, 1,053 copies of "Prospector's Handbook" by Prof. Goodwin, 307 collections of typical rocks, 1,800 copies of "Notions Élémentaires de Minéralogie".

ASSAY AND RESEARCH LABORATORIES.

The laboratories at headquarters in Quebec, are the most important ones. They are particularly well equipped for the work in mineralogy and petrography which is carried out in them.

The oldest of these laboratories is the Montreal one, which serves the public since 1910. It is located at Ecole Polytechnique, 1430 St-Denis street.

Town or Village	Number of lectures	Total of attendances	Lecturer
Amos, Abitibi	17	336	Paul D'Aragon
Barraute, Abitibi	12	169	Léo Brossard
Macamic, Abitibi	12	91	Léo Brossard
Taschereau, Abitibi	12	85	Léo Brossard
Val d'Or, Abitibi	18	139	Paul D'Aragon
New Richmond, Bonaventure	4	99	Rev. L.G. Morin
St-Godfroi, Bonaventure	6	148	Rev. L.G. Morin
Jonquière, Chicoutimi	6	448	Rev. L.G. Morin
Chicoutimi, Chicoutimi	1	1	Rev. L.G. Morin
Cap-Chat, Gaspé-Nord	9	579	Rev. L.G. Morin
Ste-Anne des Monts, Gaspé-Nord	7	177	Rev. L.G. Morin
Gaspé, Gaspé-Sud	8	427	Rev. L.G. Morin
Chandler, Gaspé-Sud	6	251	Rev. L.G. Morin
Hull, Hull	7	427	Dr. A. Mailhiot
Hull, Hull	18	437	Paul D'Aragon
St-Joseph D'Alma, Lac St-Jean	6	186	Rev. L.G. Morin
Grand'Mère, Laviolette	12	1,558	L'Abbé J.W. Laverdière
Mont-Joli, Matane	5	19	Henri Girard
Amqui, Matapédia	4	13	Henri Girard
Rimouski, Rimouski	12	838	L'Abbé J.W. Laverdière
St-Félicien, Roberval	5	171	Rev. L.G. Morin
Montreal, St-Jacques	17	1,265	Dr. A. Mailhiot
Montreal, St-Jacques	1	125	Dr. A. Mailhiot
Montreal, St-Jacques	5	400	Paul D'Aragon
Montreal, St-Jacques	4	190	S.H. Ross
Montreal, St-Jacques	10	300	Léo Brossard
Shawinigan, St-Maurice	17	3,015	L'Abbé J.W. Laverdière
Quebec, St-Sauveur	18	178	Paul D'Aragon
Rouyn, Témiscamingue	24	558	G.G. Suffle
Lorrainville, Témiscamingue	9	98	Léo Brossard
Latulipe, Témiscamingue	9	24	Léo Brossard
Trois-Rivières, Trois-Rivières	12	386	L'Abbé J.W. Laverdière
TOTAL:- 27 localities	315	13,138	8 Lecturers

The Thetford laboratory attends to the classification and grading of the products of the asbestos mines.

During the year under review these laboratories analysed or examined 8,016 samples, which involved 12,949 analyses, assays and determinations.

The work done respectively by the three laboratories is presented in tabular form.

ANALYSES AND ASSAYS, FISCAL YEAR

Laboratories	Samples received	Quantitative determinations			Qualitative determinations (free)	Total determinations
		On assay tickets	For Bureau	Paid		
Quebec	5,776	2,671	704	2,690	3,809	9,874
Montreal	1,826	1,422	---	404	527	2,353
Thetford Mines	414	---	722	---	---	722
TOTAL	8,016	4,093	1,426	3,094	4,336	12,949

The Quebec Bureau of Mines grants to holders of claims and of development licenses, free assay tickets with which they can get assays made, without charge, of a certain number of the samples collected on their property.

The table shows that more than 4,000 analyses were thus made free of charge, in virtue of the "free assay tickets" legislation.

LEGISLATION

During the session of the Legislature, held from January 26th to April 12th, 1938, several laws were passed which bear on Mining and mining rights.

A law provides for the establishment of Mine-schools, to train young men in mining work so as to qualify them to get remunerative employment in mines. (Chap.14, II George VI, 1938). Another grants to Laval University an annual subsidy of \$100,000 for the maintenance of a Superior School of mines, geology and metallurgy (Chap.15, II George VI, 1938). A third law amends certain articles of the Mining Law, among others art. 31c, in order to empower the Crown to dispose of the surface rights of mining claims and of lands under development licenses, for the establishment of townsites, and for all necessary work to promote the development of our mineral resources, without liability to pay any indemnity to the such holders. Article 54b is added to the mining law, to provide authority to evict any person illegally in possession or occupancy of land covered by a claim or by a development license. Article 127t is inserted to empower the minister, before the appointment of a mining Commissioner, to authorize, by writing, a person to act as such, in any specific case, which he may indicate, within the powers and jurisdiction of the Mining Commissioner.

EDITING AND PRINTING OF REPORTS AND THE LIBRARY

In the fiscal year 1937-38 this branch has edited the following reports and supervised their printing:-

Gold Placer Deposits of the Eastern Townships, by H.W. McGerrigle.
 Upper York River Map-Area, Gaspé Peninsula, by I.W. Jones.
 Marbleton and Vicinity, Dudswell township, Wolfe County, by Abbé J.W. Laverdière.
 Josselin-Delestre Map-Area, Abitibi County, by H.M. Bannerman.
 Mégiscane River Area, by Carl Faessler.
 Villebon-Denain Area, Abitibi, Témiscamingue and Pontiac counties, by G.K. Lowther.
 Sainte-Agathe - Saint-Jovite Map-Area, by F. Fitz Osborne.
 Mining Operations and Statistics, 1936.
 Mining Properties in the Rouyn-Bell river District, by L.V. Bell.

Beside the annual reports above mentioned, the Bureau of Mines has issued advance reports, mostly reproduced by a photographic process, the list of which follows:-

Bigniba Map-Area, Abitibi Territory, by P.E. Auger, 1937.
 Laas-Fraser Map-Area, Abitibi, by W.W. Longley, 1937.
 Report of Minister of Mines and Fisheries for the year 1936-37.
 Preliminary statement on the Mineral Production in 1937.
 Mining properties and development in Abitibi and Chibougamau regions, by S.H. Ross,
 B.-T. Denis, N. Asbury, W.W. Longley and P.-E. Auger, 1937.
 Oil prospects in Eastern Gaspé, advance report 1937, by I.W. Jones.
 Risborough and Marlow Townships in Frontenac county, advance report, 1937, by Carl Faessler.
 Arntfield mine and vicinity, Beauchastel township, by G.S. MacKenzie.
 Metalliferous deposits of Ascot township, by G.V. Douglas.
 Traverses across the Appalachian belt of Quebec, between Montmagny and Matane, by Abbé
 J.W. Laverdière.

The four last reports are available in carbon-typescripts only. All have been translated and are available in French or English.

Beside the annual reports published during the year, several other books and pamphlets have been revised and reprinted, as follows:-

Amendments to the Mining Law, (english)
 Quebec Mining Act, (english version)
 Loi des Mines de Québec.
 Regulations regarding mines.
 Notions Élémentaires de Minéralogie.
 Minerals of Quebec, an illustrated pamphlet giving a popular presentment of the mineral resources. This pamphlet has also been printed in French.
 Région minière de l'Ouest de Québec, a pamphlet giving a popular presentment of mining and mines in Western Quebec, published in French only.

Beside editing the manuscripts of the reports, and seeing them through the press, this branch has also published monthly bulletins of statistics; written 26 articles for publicity purposes, comprising some 38,000 words, which appeared in various newspapers and technical reviews; prepared numerous advertisements of the Bureau of Mines; with the issue of each report or map, a circular notice is written of it and sent to more than one hundred newspapers, French or English, advising the interested public that it is on distribution.

Mr. Albert Côté has charge of this branch and he has as collaborators: Dr. Graham who edits the English versions of the reports, Mr. Raymond Lesage who does the translation into French, and Mr. J.T. Laroche who does some of the publicity and who has charge of the Library.

LIBRARY.

In the fiscal year 1937-38 which is under review, the library purchased 261 new volumes, some bound, and others unbound. This brings the number of books at present on the library shelves to more than 5,600.

These volumes and pamphlets comprise government reports, transactions of scientific societies, and technical works on geology, mineralogy, mining, inorganic chemistry and allied subjects.

The library receives 32 technical reviews and 8 mining papers.

All these sources of information are freely used by the whole staff of the Bureau of Mines.

The task of reorganizing the library has been started by an inventory, in view of compiling a classified catalogue of the books to facilitate referring to them and consulting them.

DISTRIBUTION OF PUBLICATIONS.

Mr. J.-A. Brochu is in charge of the distribution of the publications. He reports having sent out, during the fiscal year, 23,128 copies of reports and pamphlets on the mining industry, and the geology of various regions of the Province. This distribution consisted of 11,856 English copies and 11,272 French copies. These figures do not comprise the short advance reports of the geological field-work, which are issued as pamphlets reproduced by a photoengraving process; nor do they include the geological maps which are available separate from the reports; nor the monthly and quarterly statistical statements regarding the mineral production.

The requests for French reports were formerly greatly outnumbered by the demand for English reports; both versions are now on an equal footing, which indicates that an increasing interest is being taken in mining matters, in our mineral resources, and in prospecting by the French speaking Canadians of our Province and of other provinces.

EQUIPMENT FOR FIELD PARTIES

During the fiscal year ending June 30th, 1938, the Bureau of Mines had to furnish equipment for 22 field parties of geologists, engineers and topographers who worked in the field for the Bureau of Mines. The equipments comprised surveying and other instruments for field work, canoes and camping material.

On the return of the parties to Quebec, all this material is examined, checked and repaired by the staff affected to this work. Mr. Lucien Lafrance is in charge of the supervision and the custody of these equipments.

MINING EDUCATION AND SCHOLARSHIPS

During the fiscal year 1937-38, the government of the Province of Quebec took important initiatives as regards mining education. The purpose of some of these measures is to form technicians: mining engineers, geologists and metallurgists; another aims to train young men, possessing an elementary education into experts miners. The expediency of these measures is self-evident. They offer to the youth of the Province of Quebec, who feel disposed and fitted to go into the scientific or the practical exploitation of our mineral resources and their conversion into useful metals, or who have special taste and aptitudes for the fundamental sciences of mineralogy and geology, all possible means to prepare themselves to participate in the remarkable development of our metallic resources, and share in the benefits derived from them. With these objects in view, the Provincial Government has founded and organized a mine-school to form mine-workers; subsidies have been granted for the organization of a Superior School of Mines, for the formation of mining engineers and geologists. Moreover bursaries have been awarded to students studying mining engineering in various universities.

MINE-SCHOOL.

The following notes are abstracted from the report of Mr. G.S. Grant, superintendent of the Provincial Mine-School.

The Mine-School is situated in range VIII, Dubuisson township, Abitibi county, and comprises parts of lots 38 to 43, covering mining rights over 207 acres, and in addition the surface rights over 188 acres of the surrounding land.

The mine buildings are erected at a distance of a quarter of mile north of the Rouyn-Louvicourt highway, four miles west of the town of Val d'Or. Thompson river is immediately west of the property.

The mine was formerly operated by the Gale Gold Mines, Limited, and the following work had been done on the property:- exploration trenching and test-pitting; a considerable footage of diamond drilling; shaft sinking to a depth of 275 feet; establishment of two levels, one at the 125-ft horizon with 1,440 feet of cross-cutting and drifting, and the other level at the 250-ft horizon with 2,370 feet of lateral workings.

All the underground workings and the diamond drilling had been concentrated in the southwest corner of the property; there remains therefore a large part of it which has not been explored. The northern part is almost entirely drift covered, and the most practical way to investigate its possibilities would be by diamond drilling and underground workings.

The surface deposits are underlain by pillow andesite flows, cut by dykes and intrusive bodies of syenite porphyry.

The development work formerly carried out at the Gale mine has revealed the presence of veins, generally narrow and lacking continuity. In numerous places, gold specks, visible to the naked eye, have been observed in these veins, but they are not sufficiently close together to be profitably mined. Nevertheless, the presence of coarse gold, added to the fact that the geological conditions are favourable to mineralization, permit to entertain hopes of finding gold deposits of economic interest.

Since the purchase of this mining property by the Provincial Government, in February 1938, the mine was unwatered, after having been closed since 1936; then the mining plant was repaired, and important additions of machinery made to it; the old buildings were put in good order, and new ones were erected, among which a bunkhouse to lodge 100 miner apprentices; the electric power sub-station was completely re-wired and provision was made to permit setting up an electric hoist.

Some 2,200 feet of road was constructed, with culverts and draining ditches.

Work in the underground workings was started on March 24th and by June 30th the shifts of apprentices had driven 372 feet of lateral work and 68 feet of raises, under the supervision of a mine foreman and expert miners.

On the 30th of June there were 22 apprentices at the Mine School, and the number will increase gradually up to a maximum of 100.

Lectures on personal hygiene and general medical topics are given by Dr. Matton, the physician retained by the Mine-School. Later on a course of lectures on theory of mining will be organized, to supplement the practical experience which the apprentices are acquiring by working underground.

The Department has retained the services of Mr. A.R. Lawrence as advising engineer to the Provincial Mine-School. Mr. Lawrence is the director of the Lacey Mine-School of Nova Scotia.

THE SUPERIOR MINE-SCHOOL.

This school, to which the Government of the Province grants annual subsidies, is part of the Science Faculty of Laval University, at Quebec city. The courses will begin in September 1938. It will form mining engineers.

SCHOLARSHIPS.

The Bureau of Mines is pursuing its policy, initiated last year, of awarding bursaries to deserving students of merit who intend to follow careers which the mining industry offers. The choice of candidates is made on recommendation of a committee appointed for this purpose by the Minister of Mines. The present members of this committee are:- Messrs. A.-O. Dufresne, director Bureau of Mines, chairman; Adrien Pouliot, professor at Laval University; W.G. McBride, professor at McGill University; Abbé J.W. Laverdière, professor of geology, Laval University; Théo.-C. Denis, technologist of the Bureau of Mines, Adhémar Mailhiot, director, Ecole Polytechnique; Charles Bilodeau, secretary.

Numerous applications were received by the secretary showing that many young men desire to go in for mining. The committee recommended the award of 59 scholarships, to the candidates who, in their judgment were best qualified by their scholastic attainments and the recommendations of their professors. Of these students, 21 were at Ecole Polytechnique; 10 at the Ecole Supérieure de Chimie of Laval University; 17 at Queen's University; 10 at McGill University and one at Colorado School of Mines. Four of the bursaries graduated as Mining Engineers from Queens University, and one obtained the Licence-ès-sciences from Laval University.

TECHNICAL INFORMATION BRANCH

The branch of the Bureau of Mines, in charge of Mr. Jean Morency who is an engineer, attends to the enquiries, by letter or verbally, regarding mining companies, and answers the requests, which we receive from the interested public, for information on the mineral resources, metallurgy, uses of minerals in the various industries. During the fiscal year we received 385 letters of this nature, and in many cases the answers to them necessitated searching and investigating, and much correspondence.

Mr. Morency also looks after the filing and recording of the geological plans and maps which are collected by the geologists and the mine inspectors in the course of their examinations of mining properties or otherwise.

This branch also collects, classifies and files newspaper articles and extracts, annual reports of mining companies, circulars, prospectuses and other documentation regarding mining and allied industries.

MINE ROADS

During the fiscal year under review, the length of roads constructed by the Department of Mines and Fisheries was 81 miles, and the net-work of these roads has now an aggregate length of 805.55 miles. The total cost of these roads, which at the end of the preceding fiscal year was \$3,137,168.10 has now been increased by \$599,825.71.

The roads constructed, improved and maintained during the year, may be divided up as follows:-

1°. Roads maintained during the winter season.

2°. Roads constructed, improved and maintained solely, on funds from the Bureau of Mines appropriations.

3°. Roads constructed, improved and maintained in virtue of a plan carried out between the Federal and the Provincial governments, whereby the cost is payable two-third by the former and one-third by the latter.

Roads maintained during the winter of 1937-38

The Bureau of Mines spent \$5,000 on the maintenance of the following roads:- highway Arntfield-Rouyn-Val d'Or in the counties of Témiscamingue and Abitibi; road La Sarre-Duparquet in the county of Abitibi; road Amos to Héva river, Abitibi county.

Roads constructed, improved and maintained, solely on funds from the Provincial Government

Under this item, the Bureau of Mines has expended a total sum of \$143,109.89.

The following roads were constructed:-

Varsan township - Road to the Siscoe Extension mine.

Cadillac township - Extension of the road to the Pan Canadian mine.

South Gaspé Bay township to Bonnecamp township - York river road.

The following roads were improved and maintained:-

Portland West township - High Rock mine road, Papineau county.

Mulgrave and Derry townships - Sharpley-Creek mine road, Papineau county.

Derry township - Wallingford mine road, Papineau county.

Côte-de-Beaupré Seigniory - Baie St. Paul Titanic Iron Ore mine road, Charlevoix coun-

ty.

Côte-de-Beaupré Seigniory - St. Lawrence Mica Mines, Limited mine road, Montmorency county.

Coleraine township - Vimy Ridge mine road, Mégantic county.

Dufferin and McKenzie townships - Chibougamau road, Roberval county.

Roads constructed in virtue of Federal-Provincial plan

In virtue of this arrangement, some of the roads were completed and others were constructed.

The following road was completed:-

Latulipe, Flondeau, Guillet townships - McIntyre mine road, Témiscamingue county.

The following roads were constructed:-

Louvicourt and Pascalis townships - Bussières, Perron, Beaufor and Cournor mines, Abitibi county.

Louvicourt township - Fleming mine road, Abitibi county.

Bourlamaque township - Quebec Manitou mine road, Abitibi county.

Dubuisson township - Gale mine (now the Mine-School property) road, Abitibi.

Varsan township - Siscoe mine road, Abitibi.

Dubuisson township - Shawkey mine road, Abitibi.

Duverny township - Fontana, Claverny and others, mine roads, Abitibi.

Bousquet township - Mooshla mine road, Abitibi.

Launay township - Freegold mine road, Abitibi.

Louvicourt township - Louvre mine road, Abitibi.

Bousquet township - Doreva mine road, Abitibi.

Dufresnoy township - Waite-Amulet mine road, Abitibi.

La Reine and Desmeloizes townships - Normetal mine road, Abitibi.

Fournière township - Malartic Goldfields mine road, Abitibi.

Beauchastel township - Aldermac mine road, Témiscamingue county.

Rouyn township - Senator-Rouyn and Abbeville mines road, Témiscamingue county.

Cadillac township - Road to Cadillac Station, Abitibi county.

Buckingham township - Cameron mine road, Papineau county.

In addition to all these roads, which have been completed, the Bureau of Mines has opened the following roads which are winter roads only:-

Tiblemont and Tavernier townships - Lacombe mine road, Abitibi.

Pershing and Vauquelin townships - Road connecting Matchi-Manitou lake, with the Senneterre-Mont-Laurier highway, Abitibi.

Villebon township - Cères-Chaput mine road, Abitibi.

Bourlamaque township - Payore mine road, Abitibi.

Montgay township - Part of the road to Lake Rose mine, Abitibi.

In order to further increase the efficiency of the Mine roads branch of the Bureau of mines, an office has been opened in the town of Val d'Or, and it is thought that this initiative will appreciably expedite the decision of the numerous questions which arise in connexion with the mine roads in Western Quebec.

Mr. L.A. St-Pierre, civil engineer, is the chief of the Mine roads branch.

DIVISION OF MINING TOWNS AND VILLAGES

Owing to the increased development of mining in the Province of Quebec during the past year, the question of mining villages has also assumed a greater importance. Mr. Burroughs Pelletier, civil engineer, is in charge of this Division.

From the establishment and development of mining villages, needs have arisen which required new legislation. In this regard, during the 1938 session of the Legislature, article 31c of the Mining Law was amended in order to give more power to the government so as to avoid exorbitant demands on the part of holders of mining lands under claim or development license, the surface rights of which are needed for the establishment of townsites.

Likewise in order to render more expeditious the evacuation of mining lands, occupied in opposition to the provisions of provincial laws by unauthorized persons, article 54b was added to the Mining Law. This article provides a summary procedure to evict persons who are illegally occupying mining lands.

The opportuneness of the above legislation was demonstrated in the case of the town of Val d'Or. During the past year, important public works were constructed such as water supply, sewers, road, and the town itself grew apace.

The town of Bourlamaque also increased appreciably. This necessitated new lot subdivisions in its territory.

The village of Malartic, which was started last year by the Canadian Malartic Gold Mines, Limited, in Fournière township, greatly developed. This company had assumed the task of establishing and organizing the village in question, and accomplished it very adequately. The rate of development of this townsite was such, that at different times additional territory had to be subdivided into building lots and cadastred to satisfy the demand. The quality of the constructions which are being erected there is very satisfactory.

In Cadillac township, the surveying work and the examinations made in view of the establishment of a townsite, have resulted in the creation of the village of Cadillac, by an order in Council dated January 14th, 1938. The demand for building lots was so keen that twice, new lots have been constructed, and other municipal works are being studied and considered and may soon be undertaken. The question of a municipal waterworks is also being examined.

Owing to the important mining development which is taking place at the Perron and Cournoir mines, the need of establishing a mining town in this place has determined the choice of a site which has been named village of Pascalis by order-in-Council, dated July 2nd, 1938. This village is just starting. Road work, to be performed later, is being considered.

The problem of an agglomeration of buildings, locally called "Stadacona village", situated south of the town of Rouyn, which had been under consideration last year, has been solved by the creation, in this locality, of the village of "Rouyn-Sud". An order-in-Council to this effect was approved in June 8th, 1938. For reasons of town planning, as well as for the improvement of our highways, the Roads Department, in collaboration with the Quebec Bureau of Mines, has changed the location of the Rouyn-Louvicourt road within the limits of the village. The various questions which are inherent to the establishment of the village of Rouyn-Sud, are in a way of being settled with the willing cooperation of the inhabitants of the locality.

The important development of the Belleterre mine, in the township of Guillet, Témiscamingue county, has given rise to the necessity of creating a townsite. The question is under study and a decision will be arrived at after due consideration.

In closing, I wish to express my appreciation of the work accomplished by the staff of the Bureau of Mines, and of the cooperation I received from the chiefs of divisions in the preparation of this report.

Respectfully submitted,

A.-O. DUFRESNE,

Director.

FISH AND GAME SERVICE

QUEBEC, November 15th, 1938.

To the Honourable O. Gagnon, P.C., K.C.,
Minister of Mines and Fisheries,
Quebec.

Sir:-

I have the honour to submit the annual report of the Fish and Game Service for the fiscal year ending the 30th of June, 1938.

- GENERAL REVENUE -

The following is a detailed statement of the various sources of revenue of this Service from the 1st of July 1937 to the 30th of June 1938.

	1937-1938	1936-1937	Increase	Decrease
Inland fishing licenses	\$ 4,871.55	\$ 6,098.40	\$.....	\$ 1,226.85
Maritime " "	3,095.58	5,140.24	.....	2,044.66
Non-resident fishing licenses	180.00	130.00	50.00	.....
Canning licenses	83.00	27.00	56.00	.....
Sportsmen fishing licenses (\$25.00)	6,700.00	5,400.00	1,300.00	.....
" " " (\$20.00)	1,940.00	2,000.00	.....	60.00
" " " (\$10.00)	9,180.00	3,815.00	365.00	.....
" " " club members (\$5.00)..	9,080.00	8,555.00	525.00	.....
Tourist fishing licenses, (\$5.00)	16,630.00	13,765.00	2,865.00	.....
Special " " for Anticosti	2,382.00	1,611.00	771.00	.....
Sportsmen hunting licenses (\$25.00)	20,400.00	18,650.00	1,750.00	.....
" " " (\$10.00)	4,570.00	5,040.00	.....	470.00
Hunting licenses for wild fowl (\$15.00)	600.00	990.00	.....	390.00
" " " to resident non-British subjects				
at (\$5.00)	225.00	215.00	10.00	.....
Moose hunting licenses (\$1.00)	513.00	500.47	12.53	.....
Deer " " (\$1.00)	2,553.00	1,800.00	753.00	.....
Cariboo " " (\$1.00)	36.00	44.00	.....	8.00
Fur trading licenses (\$100.00)	10,000.00	12,500.00	.....	2,500.00
" " " (\$25.00)	9,505.00	10,345.00	.....	840.00
" " " (\$10.00)	3,220.00	2,710.00	510.00	.....
Tanning and dyeing licenses (\$10.00)	170.00	70.00	100.00	.....
" " " (\$ 1.00)	2.00	1.00	1.00	.....
Special licenses to keep fur-bearing animals in				
captivity (\$ 1.00)	102.00	61.00	41.00	.....
Special licenses to trap fur-bearing animals(\$2.)	45.00	17.00	28.00	.....
Fur-farming licenses (\$ 1.00) .....	.....	434.00	.....	434.00
Trapper's license (\$ 2.00)	6,314.00	4,412.00	1,902.00	.....
Royalty on furs	47,755.50	54,227.52	.....	6,472.02
" " fish	377.39	414.62	.....	37.23
Cold storage warehouses	4,419.07	1,219.34	3,199.73	.....
Leases of lakes	51,459.75	51,264.75	195.00	.....
" " of rivers	80,285.00	70,440.00	9,845.00	.....
Hunting territory leases	54,692.00	56,285.00	.....	1,593.00
Transfer of leases	90.00	80.00	10.00	.....
Incorporation of clubs	300.00	250.00	50.00	.....
Fines	3,742.78	2,643.00	1,099.00	.....
Sale of seized goods	600.35	670.99	.....	70.64
Sale of fry and fingerlings	4,410.12	4,252.40	157.72	.....
Miscellaneous	1,462.62	248.72	1,213.90	.....
Casual revenue	67.52	.....	67.52	.....
TOTAL	\$362,059.78	\$351,328.10	\$10,731.68	.....
National Park	41,412.31	38,810.21	2,602.10	.....
GRAND TOTAL	\$403,472.09	\$390,138.31	\$13,333.78	.....

This statement shows that the receipts of the year amounted to \$403,472.09, against \$390,138.31 in 1936-37, namely an increase of \$13,333.78. It is worthy of note that there was this increase in spite of the abolishment of the one-dollar tax on fur-farms, and of the commercial licenses for fishing with nets and drag-nets, (excepting in some rare cases) in inland waters and in the upper St. Lawrence, and considering that the commercial salmon-fishing license was reduced to \$1.00 per net. Lower prices on the fur market had an effect on the issuing of the \$100. licenses to travelling purchasers. Needless to add, that the prohibiting of beaver hunting, even by Indians, also had a marked effect on the revenue from fur-royalties. The increase of \$13,333.78 under the circumstances is, therefore, a most satisfactory achievement.

KILLING OF WOLVES

During the year, 251 wolf skins were sent to the Department in order to obtain the stipulated bonus, resulting in a total disbursement of \$3,765.00.

- F U R -

Statement showing the number of each species of furs; the royalty due on each skin as well as the total receipts of each species; the total commercial value of all furs placed on the market, excepting those of silver fox, black fox and mink that come from fur-farms.

Number of skins	Species	Royalty rate	Royalty, amount paid	Average value	Total value
2,999	Otter	at \$1.00	\$ 2,999.00	\$ 25.00	\$ 74,975.00
3,304	Beaver	" 1.00	3,304.00	12.00	39,648.09
300	Bear	" 0.60	180.00	2.00	300.00
1,915	Lynx	" 0.50	957.50	30.00	57,450.00
3,396	Marten	" 1.00	3,396.00	45.00	152,920.00
1,195	Fisher	" 1.50	1,792.50	50.00	59,750.00
3	Badger	" 0.40	1.20	5.00	15.00
10,947	Skunk	" 0.10	1,094.70	.40	4,378.80
64	Wolf	" 0.70	44.80	7.00	448.00
10,739	Mink	" 0.25	2,684.75	15.00	161,085.00
3	Black Fox	" 5.00	15.00	12.00	36.00
191	Silver Fox	" 5.00	955.00	30.00	5,730.00
85	Blue Fox	" 0.75	63.75	40.00	3,400.00
15,360	Red Fox	" 0.50	7,680.00	10.00	153,600.00
3,545	Raccoon	" 0.10	354.50	5.00	17,725.00
128,241	Muskrat	" 0.05	6,412.00	0.75	96,180.75
53,421	Weasel	" 0.05	2,671.05	0.40	21,368.40
2,369	Crossed Fox	" 1.50	3,553.50	35.00	82,915.00
6,131	White Fox	" 1.50	9,196.50	20.00	122,620.00
188	Bastard Fox	" 0.50	94.00	10.00	1,880.00
2,942	Seal	" 0.10	294.20	3.50	10,297.00
10	White Bear	" 1.00	10.00	20.00	200.00
6	Bob cat	" 0.25	1.50	3.00	18.00
247,354			\$47,755.50		\$1,067,189.95

PROTECTION OF FISH AND GAME during the fiscal year 1937-38.

Our fish and game wardens, employees of the external Service, were most zealous in the execution of their duties and the results obtained are striking if we judge them by the number of actions taken against poachers.

The task of reorganizing our protection service is now under way according to a general plan that will take some years to execute. We now have 39 game-wardens in uniform in the most important centres and at strategic points where infractions might be committed. Thirty-one of these men have automobiles which they use in conformity to an understanding with the Department. This improvement had become necessary. We can no longer obtain satisfactory results if our game-wardens have to travel on foot when poachers can reach the fishing and hunting territories of the Province by motor. The opening of new roads in the forest makes it easy of access and we had to adapt our system of protection to the new conditions. Moreover, an officer in uniform has more authority and more effectively contributes, by his presence, to the prevention of an offence and to the punishment of the guilty parties. We are convinced

that proper supervision in this matter will continue to improve and that we shall thus be able to safeguard our fauna.

PRELIMINARY DETAILED STATEMENT FOR THE REPORT OF FISCAL YEAR ENDING JUNE 1938
July 1st, 1937 to June 30th, 1938.

Number of cases in each of the following districts:	1937	1938	Fines paid	Imprisonments	Cases abandoned owing to lack of sufficient evidence.	Cases dismissed	Pending cases
Montreal	165	199	174	5	2	5	13
Rivière du Loup	6	12	11	0	1	0	0
Témiscouata	9	7	4	1	1	1	0
Beauce	37	21	10	1	1	1	8
Sherbrooke	16	20	19	0	1	0	0
Chicoutimi	14	16	9	3	0	1	3
Témiscamingue	0	4	3	1	0	0	0
Abitibi	10	13	6	2	1	3	1
Rimouski	22	22	16	3	0	2	1
Pontiac	8	15	13	1	1	0	0
Quebec	19	45	35	3	3	2	2
GRAND TOTAL	306	374	300	20	11	15	28

The statement of actions taken shows that 374 cases were made and that only 11 sentences were abandoned owing to lack of sufficient evidence. There were no suspended sentences. In 1936-37, 306 cases were made; those of 1937-38, then, constitute an increase of approximately 25%. The fines were paid in 300 cases. Twenty accused were sent to prison.

The number of cases made is not necessarily proof of the amount of protection work accomplished, as the new protection service by officers in uniform and regular game-wardens resulted in preventing many possible infractions.

FISHING RESERVE OF THE HA! HA! LAKES.

As your Department has not the necessary authorization to undertake such a project, you permitted, as an experiment, the creation of a fishing reserve by means of a new plan, namely, by the issuing of the special lease that was drawn up in 1937. The two Ha!Ha! lakes, Lake Huard and Lake Ménard, in the county of Chicoutimi, were leased at a nominal price to the Saguenay and Lake St. John Tourist Association. The aim of this project was twofold, namely, to encourage tourist trade in the region and to satisfy the public's demand for a place where, at moderate prices, the poor as well as the rich could enjoy the pleasure of trout-fishing.

We believe that the experiment was a happy one and that results obtained for the first year were most satisfactory. The officers of this syndicate work gratuitously for the success of their organization. There are already three lakes where fish is plentiful and where the public has camps and boats at its disposal. In all, eleven small camps were built and furnished, each provided with running water. Each camp can comfortably accommodate four people. A main camp, where meals already can be served, will be completely equipped.

In virtue of our special contract, the Department can exercise full control over the administration. It is also stipulated in the contract that the revenue from this organization must be exclusively applied towards the cost of the organization, including the cost of necessary improvements and the expense of maintaining sufficient supervision to enforce observance of the law in general as well as of any local regulations which may be adopted to ensure the conservation of fish in the lakes.

Unquestionable proof of the success and popularity of this experiment made by the Department can be found in the official reports submitted by the Association. As a matter of fact, it is indicated there that 1,410 people took advantage of these special fishing privileges during the course of the regular season.

OUR FAUNA

Thanks to the reports submitted to the Department by our game-wardens throughout all the Province during the year regarding the conditions of our game and fish, reports which we were able to complete with the information given us from our various lessees of fish and game territories, we are now in a position to sum up present conditions, as follows:-

MOOSE. -

Moose have vanished from the region of the Eastern Townships and in that part south of the St. Lawrence west of Bellechasse. Although they have become very scarce in Bellechasse as far as Rimouski and from thence to Gaspé, still they have held their own ground in limited numbers these past few years. They have, however, become scarcer if we draw comparisons with observations made some twenty years ago.

On the north shore of the St. Lawrence, conditions vary: there is an increase of moose in the Laurentides National Park, - conditions being particularly encouraging on club territories, - while there is a decrease in Abitibi and Témiscamingue although moose are abundant in some localities not yet opened to colonization. We have reason to hope that, with the increasing popularity of kodak, it will be possible to save the monarch of our forests.

CARIBOO. -

Cariboo are very scarce in the Laurentides region. There are, however, some herds southeast of Lake Chibougamau and 75 miles from the shores of the St. Lawrence below the Saguenay river. The Gaspé Peninsula is still privileged with regard to cariboo, thanks to the natural protection afforded it by the Shickshock mountains. At Mount Albert and Tabletop mountains, there are several large herds estimated at many hundreds which will be properly protected thanks to the new Gaspé National Park, where hunting is no longer permitted. Hunting is still permitted in the rest of the Peninsula, that is, in the Counties of Gaspé South, Gaspé Nord and Bonaventure.

DEER. -

Deer is quite scarce in the Lake St. John, Abitibi and Témiscamingue districts. It is reported that, in the Gatineau region, wolves threaten rather seriously to exterminate them. In other parts of the Province, however, the information we have is more encouraging. Apparently, this animal adapts itself more easily than others to man and the clearing of the land. One has only to give it some protection and the deer rapidly multiplies. Its worse enemy is the poacher who hunts at night with a flashlight. This method of hunting is considered a serious offence in which case the Department grants no clemency.

PARTRIDGE. -

The increase of partridge seems general, and it is quite marked in some parts, amongst others that south of the St. Lawrence River from Bellechasse, to and including Gaspé peninsula, in the northern part of St. Maurice County, and the Lake St. John region. There was question, therefore, as early as last spring, to allow partridge hunting during a short season, subject to certain restrictive conditions.

MIGRATORY BIRDS. -

Of the four North-South migration routes followed by our Greater Snow geese, Canada geese, brant and ducks, our route (that is the Atlantic route) is, according to reports received, the best preserved. With the exception of brant we have observed since 1937, after a period of decrease, that there has been a very marked increase, particularly with regard to ducks. In the Province of Quebec our black duck especially was very abundant, and it is evident that the Migratory Birds Convention Act, with the restrictions it sets, has largely contributed to improving conditions.

This law was adopted by the Federal Government in 1917, to ensure putting into force the clauses of the Convention concerning certain migratory birds which was signed the 16th of August, 1916, by Canada and the United States. This law gave effect to the conventions of an international treaty and the object and spirit of this agreement must be maintained in the federal law and in the regulations which are adopted from time to time by each Province of the Dominion. The Provinces are always consulted and submit their respective recommendations. These recommendations are accepted in so far as they are not inconsistent with the conventions of the treaty. This means, in sum, that each Province may apply certain restrictions for the protection of certain migratory birds, but cannot enlarge upon the restrictions which were provided for in that treaty.

It seems that it is to this legislation that we owe the marked increase of ducks and geese in latter years. The situation is most encouraging in this connection.

FUR-BEARING ANIMALS

BEAVER. -

Beaver are increasing so much so that in certain localities they cause damage to property. Several farmers have complained because of flooding due to beaver dams which it was necessary to pull down. The beaver reserve situated between Eastmain and Rupert Rivers and

longitude 76° promises to be a success. Your Department granted a special lease to the Department of Indian Affairs of another extensive territory between Rupert River and Nottaway River. A new reserve is being organized there for the propagation of beaver and in order to provide, later on, a controlled hunting ground for the benefit of Indians.

HARE. -

Hare is decreasing north of the St. Lawrence River, whereas, to the south, it is increasing.

WHITE FOX. -

Last winter, the hunting of white fox was particularly good in the extreme northern part of the Province. The present is the plentiful period in the cycle of reproduction.

As for other fur-bearing animals, reports show that red fox is on the increase, whereas muskrat, mink, marten, fisher, otter, etc., show a decrease, except perhaps with regard to skunk which seems more plentiful. During the year, reports were submitted concerning three badgers for the payment of the royalty.

- S T A T I S T I C S -

	1937-38	1936-37
Number of lessees	533	525
Fishing and hunting rentals	\$ 177,990.30	\$ 189,842.30
Number of square miles leased	11,997	12,364
Number of leased rivers	198	355
" " lakes	4,484	3,932
" " miles of roads and portages	3,430	3,650
Valuations and improvements	\$5,097,646.19	\$4,743,560.77
Number of camps belonging to clubs	1,722	1,577
" " " individuals	1,651	1,618
Number of boats belonging to clubs	3,451	3,400
" " " " individuals	3,359	3,193
" " guardians	773	798
" " guides	2,095	1,930
" " resident members	3,853	3,374
" " non-resident members	2,916	2,877
" " guests	18,135	17,549

- FISH CAUGHT FOR SPORT -

Salmon	82,833 lbs	99,150 lbs
Trout	301,881 "	309,129 "
Other species of fish	50,062	57,986 "

- GAME KILLED -

Number of moose	181	129
" " deer	296	341
" " cariboo	0	5

- EXPENDITURES -

No.1, Salaries, leases and improvements	\$1,023,526.48	\$1,038,930.00
No.2, Expenditures incurred by Canadian members or lessees	257,263.10	263,577.00
No.3, Expenditures incurred by Canadian guests	252,742.05	251,303.00
No.4, Expenditures incurred by American members and guests	480,941.11	440,186.00

I have the honour to be, Sir,

Yours very truly,

CHARLES FREMONT,

Superintendent of Fish and Game.

MARITIME FISHERIES BRANCH

QUEBEC, September 28th, 1938.

To the Honourable O. Gagnon, P.C., K.C.,
Minister of Mines and Fisheries,
Quebec.

Sir:-

I have the honour to submit the report of the Maritime Fisheries Branch of your Department for the fiscal year ending June 30th, 1938.

Statistical figures covering the 1937 operations have just been issued by the Dominion Bureau of Statistics and I regret having to advise that a considerable decrease from the 1936 season is shown both as to value as well as quantity caught. The decrease in value amounts to \$216,368.00, or 10% and the decrease in quantity from 977,415 cwts in 1936 to 796,125 cwts in 1937. This is the smallest catch recorded since 1932.

It is evident that the large lumbering operations throughout the Gaspé Peninsula during the 1937 season was in part responsible for this big decrease but I consider the loss of the Italian market, brought about by the sanctions, was in a measure even more so. Both fishermen and producers in the autumn of 1936 had great difficulty in disposing of their stocks of Dry Codfish so that during the season of 1937, they were loath to continue.

Despite the adverse conditions existing in the world's markets in the autumn of 1937, I am able to advise that owing to the efforts put forth by your department, all stocks of fish both dry, green-salted and frozen were practically all disposed of before the end of the year and at fairly remunerative prices.

As you are aware, your Department did its utmost to regain the Italian market through the medium of the Quebec Liquor Commission, in arranging the exchange of Italian wine for Codfish. Several interviews were held with the Italian Consul in Montreal, but all to no purpose; it was impossible to obtain entry into Italy for our Codfish.

I am pleased to report that the present season of 1938 will show a big return of fishermen to the industry and this due in a large measure to the policy of a bonus to the fishermen which was made by your Department for the 1937 catch.

Codfish continues to be the most important variety and while dried Codfish heretofore has always been the most important of this variety, the season of 1937 saw green salted give a larger revenue than dry. The value of production of other varieties such as salmon, smelts, herring, halibut, lobsters, mackerel, etc., varied little from the 1936 catch, some were slightly higher while others were lower, the big decrease, however, was accounted for in the production of Codfish.

The Capital equipment represented by fishing boats, fishing gear, etc., shows a considerable decrease from 1936, viz \$321,700.00 while the number of persons actually employed in the catching of fish shows a decrease of 2,400 from 1936.

The efforts on the part of your Department in the matter of building, acquiring and enlarging of Cold Storage Plants certainly continues to justify the expenditure as with the loss of dry fish markets, had we not been in a position to produce fresh and frozen fish, the results would have been disastrous. During 1937, your Department acquired the Cold Storage Plant at Carleton, and the following new plants were constructed:- Aurigny, Magdalen Islands; L'Anse a la Barbe, County of Bonaventure; Gaspé Basin and Barachois, County of Gaspé. The Plants at Havre St-Pierre and Seven Islands, in the County of Saguenay were enlarged, as also the Plant at Grande Vallée, in the County of Gaspé North. Twenty snow-houses were also constructed at various points along the North and South Shores, with a view to helping out the fresh fish situation.

I might here mention that 1938 saw the highest price ever paid to fishermen for salmon and this was made possible by the Cold Storage facilities afforded by your Department.

The season of 1937 saw the first Cold Storage Plant constructed at the Magdalen Islands and judging by the reports we have had, it has rendered excellent service to the people of that district. A second Plant is now being constructed at one of the other islands.

The scientific survey of the North Atlantic salmon, begun by your Department in 1937, was further pursued during the 1938 salmon season and while details of results obtained during the present season are not yet available, Dr. Préfontaine and his staff hope shortly to furnish us this information.

A scientific survey of the White Whale (beluga) of the North Shore of the St. Lawrence was undertaken this present season by your Department under the able direction of Dr. Vladim D. Vladykov but at this writing, no details are yet available.

The Capital expenditure of your Department throughout the fishing districts during the past few years has now attained very considerable proportions and I give you below a complete inventory to date of all Cold Storage Plants, Ice House, etc.

LIST OF COMMERCIAL COLD STORAGE PLANTS AND BAIT FREEZERS

County of Matane:-

Matane
Mechins

County of Gaspé North:-

Ste. Anne des Monts
Petite Rivière Madeleine
Grande Vallée
Chlorydormes
St. Maurice de l'Echourie

County of Gaspé South:-

Fox River
L'Anse au Griffon
L'Anse à Louise (Cap des Rosiers)
Little Gaspé
Gaspé
St. Georges de Malbaie
Belle Anse
Barachois
Percé

County of Gaspé South:- (continued)

L'Anse au Beaufils
Grand River
Newport Point

County of Bonaventure:-

Gascons
Gascons Ouest (L'Anse à la Barbe)
Port Daniel
Paspebiac
St. Siméon
Carleton
Miguasha

County of Magdalen Islands:-

Aurigny

County of Saguenay:-

Seven Islands
Hâvre St. Pierre
Natashquan

LIST OF ICE AND SNOW HOUSES

County of Matane:-

Baie des Sables
Ste. Félicité
Jaco Hughes
Ilets de Mechins
Mechins
Petits Mechins

County of Gaspé North:-

St. Joachim de Tourelle West
St. Joachim de Tourelle East
St. Joachim de Tourelle (Cote Neuve)
Ruisseau des Olives
Mont St. Pierre
Mont Louis
St. Antoine Gros Morne
Manche D'Epée
Rivière Madeleine
Pointe Frégate
Grand Chlorydormes
St. Yvon
L'Anse à Valteau
Pointe Jaune
St. Maurice de l'Echourie
Petit Cap

County of Gaspé South:-

Little Fox River
L'Anse au Griffon
Cap des Rosiers
St. Georges Cove
Gaspé

County of Bonaventure:-

Black Cape
Carleton

County of Saguenay:-

Seven Islands
Chaloupe
Rivière aux Graines
Sheldrake
Thunder River West
Thunder River East
Magpie
Rivière St. Jean
Longue Pointe Mingan
Hâvre St. Pierre
Baie Johan Beetz
Aguanish
Whale Head
Mutton Bay
Grosse Ile (Gros Mecatina)
St. Augustine
Chicatica
Rocky Bay
Old Fort
St. Paul's River
Kegaska
Harrington
Tabatière
Five Leagues
Longue Pointe Blanc Sablon

LIST OF COMBINED ICE HOUSES, SALTING AND FILLETING PLANTS

County of Matane:-
Matane

County of Gaspé North:-
Grande Vallée

County of Gaspé South:-
Fox River
Little Gaspé

County of Bonaventure:-
Gascons
Bonaventure
Ruisseau Leblanc

County of Magdalen Islands:-
Aurigny

OIL REFINING PLANT

County of Gaspé South:-
Fox River

LIST OF DRY FISH INSPECTION SHEDS

County of Gaspé North:-
St. Maurice de l'Echourie
Madeleine
Grande Vallée
Chlorydormes
Ruisseau à l'A.1
Petit Cap
Fame Point
Anse à Valteau

County of Gaspé South:-
Fox River
Fox River West
Anse au Griffon
Trois Ruisseaux
Jersey Cove
Anse à Louise
Grande Grève (St. Georges Cove)

County of Gaspé South:-
Cap des Rosiers East
Little Fox River
Barachois

County of Saguenay:-
Thunder River
Hâvre St. Pierre
Whale Head
Tabatière
Romaine
Harrington
Kegaska
Mutton Bay
Grosse Ile
St. Augustine
Old Fort

I have the honour to be, Sir,

Yours Faithfully,

F.M. GIBAUT

Superintendent of Maritime Fisheries.

MONTREAL, December 6th, 1938.

To the Honourable O. Gagnon, P.C., K.C.,
Minister of Mines and Fisheries,
Quebec.

Sir:-

I have the honour to submit my report of the Hatcheries for the fiscal year ended the 30th June, 1938.

The distribution of fish has been listed for each Hatchery and compares favorably with that of last year.

The new Hatchery at Gaspé under the direction of Mr. R.C. Lindsay, construction of which was commenced last year, was completed during the month of October and served for the incubation of our salmon and trout eggs during the winter months. This building has two floors available for the hatching of eggs and the feeding of fish, nearly doubling the space usually available in a building of this size.

We now have a modern well equipped building with an adequate supply of water of the proper quality. The source of our water supply, Mill Brook, comes from two fair size lakes, so there is no danger of drought or flooding. We have, moreover, a large supply of spring water and can, in consequence, regulate the temperature of the water in our ponds as we desire. The quality and quantity of water is such that we can look forward to a much greater production of salmon and trout fingerlings.

Last year we raised 35,400 salmon fingerlings. This number should be doubled each year until we have an annual production of 300,000 fingerlings between three and four inches in length. This year our salmon fingerlings were a little more than two inches in length.

Last winter we used for the second time a closed circulation system to insure a supply of warm water - 10 to 15 deg.C. - for the rapid incubation and feeding of fish during the winter months. This is the same scheme that we first used in our Hatchery at Magog, but of course modified to meet the local conditions. For instance, at Magog we are at the source of a large and steady supply of electricity. At Gaspé it is necessary to operate our own electric plant, adding many technical difficulties outside the usual practise of fish culturists. Two years of operation has convinced me that it is quite feasible to expect the production of six and seven inch trout fingerlings whenever you may decide that this size of fish is desirable or needed for stocking purposes by any of your Hatcheries. We can have in any or all of our Hatcheries two growing seasons in one year. At Gaspé we had trout fingerlings over five inches in length and weighing 25 grams, that is nearly an ounce (28.8 grams). It is useless to raise larger fish than these unless the distribution can be made by aeroplane, and this method at present is only practical in the Laurentian districts of the Province.

Recently we have undertaken the counting of adult salmon in some of our rivers. This is important work that should be continued from year to year and should include as many of our rivers as possible. A fairly accurate estimate of the number of fish that have escaped the nets and sportsmen and other hazards to reach the spawning beds can be of great value. It is usually possible to secure the cooperation and support of the various lessees. I think it is a programme that we should continue and expand, permitting it to be a matter of gradual increase in scope depending to a great extent on the cooperation received. Work on the salmon rivers of the north and south shore has entailed the inspection of several rivers for the installation and modification of fishways and investigations of fishing conditions and effects of lumbering activities.

It is expected to have ready for publication soon a comprehensive report of a technical nature concerning our researches on our trout lakes at Gaspé. It includes weekly readings at different depths, summer and winter, for three consecutive years of the temperatures and oxygen contents of Ross Lake with supplementary readings of other lakes.

It is a great pleasure to report that we have now installed a pipe line at St.Faustin to supply the establishment, which is under the direction of Mr. Gustave Prévost, with a large supply of spring water, approximately 500 gallons a minute. With this supply of water we are saved from heavy rainfalls and spring freshets that have killed many of our fish in the past two years. We now have complete control, irrespective of the vagaries of the weather.

Considerable other construction work has been done at St.Faustin including the

improvement of the appearance of the grounds and the building of new ponds for the raising of trout fingerlings.

Technical improvements in the transportation of fingerlings by aeroplane have been tested and have proved successful. It is possible with the use of oxygen to distribute fingerlings so thickly packed that there is by weight one part of water to one part fish. These experiments were presented in a paper entitled "Observations on the Respiration of Trout Fingerlings and New Method of Transporting Speckled Trout" to the American Fisheries Society by Messrs. Prévost and Piché, a summary of which follows:-

SUMMARY - "In view of the necessity to secure a method for the most economical transportation of trout, conditions permitting the accomodation of considerable numbers of fingerlings in relatively small volumes of water, have been determined.

A uniform distribution of the fish in the tank is obtained through their vertical separation by the use of perforated metallic shelves; this arrangement prevents the huddling of the fish at the bottom of the tank, and their subsequent exhaustion through the continuous struggle they exhibit when this occurs. It insures, at the same time, a rapid and constant diffusion of the oxygen which is supplied at the bottom of the tank by highly efficient diffusers.

Experiments showed that fingerlings, the volume of which exceeded 50 per cent of that of the water used, were thus comfortably accomodated for periods of three to four hours. Over longer periods, large quantities of slime accumulated in the water, and caused the death of the fish, but we surmise that the adjunction of a pump and filter to the tank would readily eliminate it if necessary".

I have the honour to be, Sir,

Yours very truly,

B.W. TAYLOR,

Biologist and Director of Fish Culture.

BALDWIN'S MILLS DISTRIBUTION

W.G. Belknap - Superintendent

Advanced Rainbow Trout Fry

Transferred to Magog Hatchery 12,400

Speckled Trout Fingerlings (1937)

Tributaries of Black River	4,000	Transferred to Magog Hatchery	5,000
Lac Raquette	5,500	Marcoux & White Rivers	5,000
Lac Camille	5,000	Baldwin Brook	6,000
Trout Lake	2,000	Webster Brook	5,000
Lac Poulin	5,000	Big Hollow Brook	5,000
Transferred to Magog Hatchery	1,000	Peasley & Maseau Brooks	10,000
Lac à la Roche	1,500	Lawrence Brook	10,000
Lac le Boeuf	2,000	Yamaska River at West Shefford	10,000
Tributaries of Lake Joseph	4,000	Belknap's Brook	6,000
Lac Etchemin & Tributaries	2,000		
McKenzie Pond	5,000		
		TOTAL	99,000

Rainbow Trout Fingerlings

Streams leading into Combre River	4,000	Lake Joseph	8,000
Streams leading into Richmond Lake ...	12,000	Lake William	5,000
North River & Tributaries	4,000	Private Stream, County of Brome	500
Nicolet River	4,000	Coaticook River	20,000
Tributaries of Nicolet River	8,000	Moose River	5,000
Victoria & West Rivers	15,000	Williams & Kilburn Brooks	20,000
Bergeron River	15,000	Currier & Meadow Brooks	20,000
Mill Brook	5,000	Tributaries of Tomifobia River	35,000
Heselton Brook	5,000		
		TOTAL	185,500

Speckled Trout Yearlings

Lac Chabot (Private)..... 3,000

Advanced Speckled Trout FryStreams Leading into Lake Lester175,000
Streams Leading into Little Pond 35,000

Transferred to Magog Hatchery 32,000

TOTAL242,000

Advanced Grey Trout FryTransferred to Magog Hatchery 25,000
Lake Memphremagog120,000

Lake Massiwappi100,000

TOTAL245,000

GASPE DISTRIBUTION

R.C. Lindsay - Superintendent

Salmon Fry (1937)York River101,000
St. John River 83,000
Dartmouth River 64,000
Little Cascapédia River 80,000
Bonaventure River 80,000
Port Daniel River 40,000
Grand Pabos River 60,000Ste. Adelaide de Pabos River 60,000
Grand River 80,000
Barachois River 40,000
Ste. Anne des Monts River 42,000
Cap Chat River 42,000
Matane River 40,000

TOTAL 812,000

Salmon FingerlingsMatane River 10,000
St. John River 6,500
Dartmouth River 6,500York River 8,800
Transfer, Cascapédia 800

TOTAL 32,600

Speckled Trout FingerlingsBonaventure River 2,400
Devil's Lake 1,000
Lac Trois Milles (Causapscal) 1,000
Lac à Pitre (Amqui) 1,000
Lac Joram (Val Brillant) 1,000
Lac Dubé (Témiscouata) 1,500
Lac Légaré " 1,500Lac Lavoie (Témiscouata) 1,000
Lac Touladis " 4,000
Lac Témiscouata " 2,000
Cabano River 2,000
Grand River Lake 900
Newport Lake 800

TOTAL 20,100

Speckled Trout YearlingsLac Témiscouata (Témiscouata) 715
Cabano River " 700
Grand River Lake 500Newport Lake 445
Third Lake 700
Fourth Lake 930

TOTAL 3,990

Speckled Trout Two-Year-OldsBernier Lake 300
Lac Pierre 200
Lac l'Echourie 300Lac Anse à Valteau 250
Lac Grand Etang 400
Portage Lakes 300

TOTAL 1,750

Speckled Trout Three-Year-OldsLac Grand Etang 255
Portage Lakes 30

York River Estuary 994

TOTAL 1,279

Speckled Trout Four-Year-Olds

York River Estuary 1,097

Salmon Fry (1938)

York River	130,000	Grand Pabos River, North Branch	50,000
Dartmouth River	100,000	Little Pabos River	50,000
St. John River	157,500	Grand River	100,000
Little Cascapédia River	100,000	Ste. Anne des Monts River	50,000
Bonaventure River	100,000	Cap Chat River	50,000
Port Daniel River	50,000	Matane River	50,000
Grand Pabos River, West Branch	25,000		

TOTAL 1,012,500

MAGOG DISTRIBUTION

Geo.W. Belknap - Superintendent

Speckled Trout Fingerlings

Bowker Lake 6,900

Rainbow Trout Fingerlings

Bowker Lake 8,686

Advanced Speckled Trout Fry

Dr. Bowen's Pond	1,000	Duck Lake Sporting Club	2,000
Little Brompton Lake	2,500	Taylor Brook	2,000
Maloney Brook	1,000	Victoria River	4,000
Bowen Brook	1,000	Wolfe County, Fish & Game Club	2,000
Drew's Brook	1,000	Davidson's Brook	2,000
Pope Brook	1,000	McConnell Brook	3,000
Hecks Brook	1,000	Glen Brook	2,000
Castle Brook	2,000	Chateau Brook	2,000
Bakers Pond	1,000	Castle Brook	3,000
Gulph Brook	1,000	Tributaries to North River	3,280
Munsey Brook	1,000		

TOTAL 38,780

Advanced Grey Trout Fry

Lake Memphremagog 1,200
 Lake Lester 1,000

Adult Black Bass

Department of Mines and Resources,
 Ottawa 487

ST.ALEXIS DES MONTS DISTRIBUTION

Aimé Elliott - Superintendent

Speckled Trout Fingerlings

Lac Joe Bob	4,000	Lakes Club Masketsy	5,000
Lac St. Pierre	1,000	Lac Long	1,000
Lac Millier	1,000	Lac des Iles	5,000
Lac à Paul	1,000	Lac Seymour	5,000
Lake Ferron	2,000	Lac des Chicots	2,000
Lac Ventre Rouge	1,000	Lac à l'eau Claire	5,000
Lac Brûlé	5,000	Lac Sûr	1,000
Lac Bérubé	1,000	Lac Rouge	1,000
Lac Archange	5,000	Lac Gustave	1,000
Lac Beauport	1,000	Lac à L'île	2,000
Lac Caché	1,000	Lac Lambert	4,000
Lac Donnell	1,000	Lake Unnamed	1,000

TOTAL 57,000

TADOUSSAC DISTRIBUTION
1937-1938
J.N. Catellier - Superintendent

Speckled Trout Fingerlings

Lakes Canada Steamship Lines	5,000	Lake des Coeurs	2,000
Lakes Club St.Germain	4,000	Two Lakes at Tadoussac	3,000
Lake Sergerie	1,000	Lakes Simard	3,000
Lake Malesse	1,000	Lake Hovington	5,000
Lake Sucrierie	1,000	Lake Laterrière	5,000
Lake Gravel	6,000	Lake without fish at Tadoussac	3,000
Lake Bergeron	1,000	Lac à l'Ours	2,000
Lake Caron	1,000		
		TOTAL	43,000

Salmon Fingerlings

Lake LaBolle	6,000
River Baude	10,000
TOTAL	16,000

Speckled Trout Fry

Lake Boudreault	4,000	2ème Lake Maurice	5,000
Lake Lavcie	4,000	Lakes Club Eternity	15,000
Lake Houde	4,000	Lake Otis	20,000
Lake Dallaire	10,000	Public Lake	10,000
Lake Martel	4,000	Public Lake	10,000
Lake Long	5,000	Lake Tremblay	20,000
Lake Gobeil	5,000	Public Lake on National Route	10,000
Lake Boulanger	10,000	3ème Lake Maurice	20,000
Lake Sapin	10,000	Three lakes without name	20,000
Lake Guillaume	5,000	Club Laurent	20,000
Lake Maurice	5,000	Public Lake	10,000
		TOTAL	226,000

Salmon Fry

Malbaie River	120,000	Club Eternity	35,000
Noire River	150,000	Petit Saguenay River	100,000
Baude River	35,000	Two large lakes without fish	50,000
Lake Gobeil	55,000	Ruisseau à l'Ours	50,000
Port-au-Saumon River	105,000	Ste.Marguerite River	185,000
Lake Long	25,000	Ruisseau Pierrot	100,000
Lake Guillaume	25,000	Dolbeau River	60,000
Lake Maurice	25,000	Bergeronnes River	50,000
Du Gouffre River	100,000	Lac à l'Ours	50,000
Pinault River	60,000		
		TOTAL	1,380,000

ST.FAUSTIN DISTRIBUTION

Gustave Prévost - Superintendent

Speckled Trout Fingerlings

Lac à feu	500	Lac Borrier	1,000
Lac Aubry	500	Lac Boucher (La Truite)	1,000
Lac d'Argent	500	Brady Lake	1,000
Lac à Plow	1,000	Lac Brûlé	500
Lac Bellevue	2,000	Lac Bazinet 1	750
Beaver Lake (Long)	1,325	Lac Bazinet 2	750
Bexie Lake	1,000	Lac Blanc	500
Lac La Blanche	2,000	Lac Bouleau	500
Lac Brière (Dupras)	1,500	Lac Boisclair	2,000
Beaver Creek	1,000	Lac Bois Franc	1,000
Lac Brochet	1,000	Lake Bug	1,000
Butler Lake	1,000	Lac Brossard	1,000
Lac Beaulne	1,000	Lac Bouleau	1,600
Black Lake	2,000	Barnes Lake	3,000
Lac Bouillon	1,000	Lac Barron	2,000
Lac Bélanger (Petit Lac)	500	Lac Beauchamp	1,000
Lac Bleu	500	Black Lake (Noir)	1,000
Lac Bois Franc	3,000	Lac Bois Franc	1,000
Lac Boisseau	1,000	Boyd Lake	2,000

Lac Caché	2,500	Jack Hall's Lake	1,000
Lac Clair	500	Lac Jaune	1,000
Lac Clair	500	Lac Juno	500
David Creek	1,000	Lac Joseph (Charles)	1,325
Lac Crépeau (aux Pins)	5,000	Kazabazua River	5,000
Lac Charles	1,000	Lake Kelly	2,000
Lac Chatte	2,000	Lake Kendal	5,000
Lakes Chapleau Club	20,000	Lac Lanthier	5,000
Lac au Cap	5,000	Loon Lake	1,000
Lac la Croix	5,000	Lac Lajeunesse	3,000
Campbell's Lake	1,000	Lac Lamoureux	500
Chysolm Lake	1,000	Lac Laura	712
Craig Lake	1,000	Lac Legault	1,000
Lac Castor Blanc	1,500	Lac Lévesque	500
Lac aux Cerises	500	Lac Long	1,000
Lac Chamberlain	500	Lac Lucerne	1,000
Lac Caribou	1,000	Lac Ludger	1,000
Lac Chapleau	10,000	Lac Long	1,000
Lac Clément	500	Lac Léas	500
Lac Croche	1,000	Lac Long	1,000
Lac Catherine	1,500	Loon Lake	1,500
Lac de la Chaîne	1,500	Lac LaMarsh	1,000
Cameron Lake	2,000	Little Trout Lake	2,000
Canoe Lake (Coursol)	1,000	Lac Long	500
Clay Lake	500	Lac Long	1,000
Lac Codos (Sucreries)	1,000	Lac Michanville	500
Lac Caché	1,000	Lac Montaigne	1,000
Lac Caisse	400	Lac Montigny	1,000
Lac Carré	2,000	Lac des Monts	1,325
Lac Castor	1,325	Lac Marcel	500
Lac Castor	500	Lac Mondor	500
Lac des Cèdres	500	Meach Lake	5,270
Lac Charlebois	1,000	Murray Lake	2,000
Lac Chatillon	2,000	McGillivray Lake	3,000
Lacs Cordon & Truite	2,000	Mud Lake	500
Daly Lake	1,500	Lake Manitou	1,000
Lac de la Dame	1,500	Lac Maxime	500
Lac Duhamel	500	Lac Ménard	600
Lac Désert	2,000	Lac Mimi	5,000
Diamond Lake	1,000	Lac de la Montagne	500
Lac Deschamps	1,000	Lac Nantel	1,000
Lac Double	3,000	Lac Ouimet	2,735
Doctor's Lake	1,000	Lac Obompsawin	10,350
Lac Dubeau	500	Otter Lake (Loutre)	2,000
Lac Dupaigne	500	Lac Paquette	3,000
Doyley Lake	1,000	Lake Pearson	1,000
Lac Equerre	1,000	Lac Profond	1,000
Lakes Edwards & Harrington	3,000	Lac Paquin	1,500
Lac Echo	1,000	Lac Perreault	1,500
Lac Equerre	3,000	Lac Pesashiawa	4,000
Lac Ethier	1,000	Lake Pike	2,000
Lac Fer à Cheval	500	Lac Profond	1,500
Lac Français	3,500	Lac Proulx	2,000
Lac Felspar	1,000	Lac Pagé	500
Lac Grange (St.Jean)	1,000	Lac Poisson	2,000
Lac Gagnon	5,000	Lac des Plages	2,500
Lac Gauthier	5,000	Lac Provision	2,000
Lac Gélinas	3,000	Lac Paquette	2,000
Lac Grand	1,000	Lac Perreault	500
Lac Grenier	1,000	Lac Pin Rouge	1,000
Lac Guindon	1,000	Lac aux Poils	1,000
Lac Guilmette	1,500	Lac Pin Rouge	1,000
Lac Gémont	1,000	Lac Prévost	1,000
Lac Georges	500	Quinn Lake	1,500
Green (Maple) Lake	1,000	Lac Quenouille	1,000
Lake Henry	1,000	Lac la Roche	5,000
Lake Half Moon	3,000	Lac Rat Bleu	2,000
Lake Harrington	1,000	Lac Racette	1,000
Lake Hughes	1,000	Lac des Renauds	1,000
Lac des Iles	1,000	Lac Rond	2,000
Lac d'Iselle	300	Lac Rougeaud	1,000
Lake Island	1,000	Lake Reynolds (Godin)	1,000
Lake Isabel	1,500	Lac Robillard	1,000
Lac des Iles	500	Lac Rocher	1,000

Lac Rouge	1,000	Lake Copeland	500
Robinson's Lake	3,000	Lake Curley	1,500
Lac Roche	1,500	Lake Don	1,000
Round Lake	500	Lac DuRang	1,500
Round Lake	500	Lake Elsie	500
Lake Shea	1,000	Lake Frances	500
Lac St.Denis	1,000	Lac Gabrielle	5,000
Lac St.François Xavier	4,000	Lake George	1,000
Silver Lake	1,000	Lakes Gerta & Wayne	1,000
Swagin Lake	3,000	Lake Greenbay	500
Lac St.Patrice	2,000	Lake Grove	500
Lac Sauvage	1,000	Lake Hodgins	1,000
Lake Sam Loch	2,000	Lake Jane	3,000
Lac Sarrazin	3,000	Lake Johnson	2,000
Lac du Seigneur	1,000	Lake Kelly	500
Lake Scroggie	3,000	Lake Kent	1,000
Lac Supérieur	6,000	Lake Knox	500
Lake Summit	5,000	Lake Leslie	2,000
Lac Truite	500	Lake Litchfield	2,000
Lac Truite	1,000	Lac des Loups	2,000
Twin Lakes	2,000	Lac Loutre (Otter)	500
Lac Tellier	500	Lake McKay's	5,000
Lac Taillefer	500	Lake Mechan	1,000
Lac à la Truite	1,000	Lakes Moodie & Cowan	500
Trout Lake	1,500	Lake Moore	500
Lac Trois Montagnes	2,000	Lake Moore	2,000
Trout Lake	500	Lake Neil (Trout)	3,000
Lac Truite	1,500	Pontiac Game Club	7,415
Lac Vaseux	1,000	Lake Prendergast	1,000
Lac Vert	2,500	Lake Presley	500
Lac Vail	2,000	Lake Quyon River	5,000
Lac Vert	500	Lake Reckwald	500
Lac Vingt-Sous	1,000	Lake Richardson	1,000
Lac Veillot	12,000	Lake Simpson	1,000
Lake William	2,000	Stag Creek	2,000
Lake Wentworth	1,000	Stevenson Creek	2,000
Lake Wexford	1,500	Lake Toote	500
Lake Wyss	1,250	Lake Trooper	1,000
Lac Xavier	1,000	Lake Tuffet	500
Lake Argue	500	3 Unnamed Lakes	1,500
Lake Barnes	1,000	Lake Wilson	500
Lake Cawood	1,000		

TOTAL452,432

Speckled Trout Fry

Lac des Seize Iles	35,000	Lac Xavier	25,000
W.W. King's Lake	5,000	Lac Trois Montagnes	50,000
Lac Carré	10,000	Lac Gagnon	20,000
Lac Quenouille	50,000	Lac Gauthier	50,000
Lac Supérieur	50,000	Lac Masson	50,000
Lac Tremblant	100,000	Unnamed Lake	50,000
Lac La Blanche	20,000	Lac de la Truite	50,000
Lac Mercier	25,000	Lac Charlebois	50,000
Lac Manitou	75,000	Lac de la Truite	50,000
Lac Equerre	10,000	Lac Chapleau	50,000
Lac Français	10,000	Lac St.François Xavier	100,000
Lac Lévesque	10,000		

TOTAL945,000

Speckled Trout Yearlings

Lake Daly	500
Lac Lucerne	460
TOTAL	960

QUEBEC ZOOLOGICAL GARDEN

CHARLESBOURG, September 27th, 1938.

To the Honourable O. Gagnon, P.C., K.C.,
Minister of Mines and Fisheries,
Quebec.

Sir:-

I have the honour to submit the sixth annual report on the operations of the Quebec Zoological Garden.

During the year just ended, there were three important events that are worth mentioning. Firstly, there was a marked increase in the number of various species of animals that were exhibited. The following comparative table clearly shows the number of each species of birds and mammals as well as the number of specimens that we had during the years 1937 and 1938:-

	Species 1937-1938		Specimens 1937-1938	
Mammals	31	33	230	261
Birds	53	76	212	260
Fish	2	1	11	12
Reptiles	5	4	5	5
TOTAL ...	91	114	458	538

The present number of species, compared with that of the previous year, namely 538 against 458, as well as the variety of these species which number 114 against 91 of the past year, are two important factors from the viewpoint of popularizing zoology. In fact, as a result of these increases, visitors may now make very instructive comparisons between our various species of animals. It has been possible to do this only since a few years. In so far as species are concerned, the increase of 23 is most encouraging and enables us to state that no effort has been spared to improve the knowledge of natural history among those who take the trouble to visit our park.

Even though we may have again this year attained the object for which the Zoological Garden was created, we do not intend to stop at that. If the resources at our future disposal permit, we shall eagerly continue to augment our study-material for the benefit of the visitors, who are coming in increasingly greater numbers.

The second important event to which I wish to draw attention is the receiving during the year of important grants through the generosity of the Department of Labour, for the improvement and enlargement of our zoological domain. I take this opportunity to express our deepest gratitude to the Honourable William Tremblay, Minister of Labour, and to those of his associates who worked with us. They spared neither their time nor sincere interest to obtain success in our work.

It is not necessary to enumerate here, Sir, the various kinds of work we do at the Quebec Zoological Garden. I shall be content with mentioning the principal ones and will leave the detailed report to a later time when all the work is completed. In a general way, the improvements consist in embellishing the grounds, in laying-out a rock garden along DuBerger River, in organizing in a more elaborate manner our arboretum which so far is provided with a terrace and a pond, and in the organization of special cages that will enable us to increase our exhibits. In addition to these improvements, we are proceeding with the enlargement of the Garden by extending the wall around the ruminant section, so that these animals may be viewed in the open instead of through gratings. On the other hand, two cages, one for black bears and the other for grizzlies, are under construction as well as three aviaries for the bird section. We are also arranging a barn for centralization of our services. All these improvements, for which we are able to employ a large number of labourers of all trades, are done according to specifications of experts whose plans have been submitted and approved by the Quebec Zoological Society at their regular meetings.

The third important event to which I wish to draw attention is one already well known to everybody, as the newspapers made considerable mention of it. It is the damages caused to our property by the storm of the night of August 31st last. Turbulent waters caused considerable erosion in several localities on our lands. On the morning of September 1st, 1938, the waters of the DuBerger, swollen by the rains, had risen fifteen feet and thus considerably widened the bed of the river. This catastrophe brought to the Garden many members of our Society as well as crowds of visitors who came to view the damages and offer their sympathy in

our misfortune. I take this opportunity to publicly thank and convey our gratitude to the press and to our visitors who deplored the damages and who so kindly expressed the hope that we would reconstitute, as completely and as soon as possible, the fine scenery that the course of the DuBerger River and the land adjoining it presented before the storm. Owing to these damages, we closed the Park for a few days, but visitors were admitted again the following Sunday when measures had been taken for their security. Material damages to our fauna were not very heavy as we only lost a few birds and a few animals which readily can be replaced. In order to start the work of restoration, the Society immediately called a meeting to determine the amount of damages and to elaborate plans of reorganization and reconstruction.

ACTIVITIES OF THE SOCIETY. -

The Quebec Zoological Society meets once a month to study plans and projects concerning construction, arrangement and enlargement of the Zoo as well as to consider scientific programs for future execution. Projects that cannot be undertaken immediately are postponed until later. As for scientific programs, the members of the Society give the necessary directions but leave the detailed work to specialized experts.

The Society warmly endorses what is known as study-days which it duly authorized in 1936. These study-days enable groups of school children, under the direction of their teachers, to visit every part of the Zoological Garden and to obtain (thanks to Abbé Théophile Pageot, whom the Society entrusted with the supervision of these study-days) precise scientific information with the additional demonstration offered by live specimens of the species being studied.

Again this year, the Society sponsored two scientific projects that my assistant, Mr. Richard Bernard, and I intend to present in the form of a paper before the French-Canadian Association for the Advancement of Science. I wish to draw your attention, Sir, to the fact that Mr. Bernard, while during the academic year he studies at Cornell University, does not confine his activities solely to his studies but, during the vacations, he works also on various scientific projects. I am convinced that the Zoological Society made a fortunate choice, and that its recommendation in favour of a scholarship for Mr. Bernard has been more than justified.

VISITORS. -

Although weather conditions were most unfavourable during the past season, the number of visitors to the Garden was a record not only from the viewpoint of general attendance but also with regard to daily attendance.

The Zoo opened on the 20th of May and closed on the 15th of October. The following statement shows, month by month, the number of visitors for this period:-

May	12,900	visitors
June	21,312	"
July	28,942	"
August	30,376	"
September	8,195	"
October	4,230	"

TOTAL 105,955 visitors

The record attendance for Sunday was 8,113 people. This is evidence of the interest taken by our people in natural history. This interest and the sympathy which is accorded by all, encourage us to develop more and more the attractions of the Garden so that it will be, if not one of the largest in America, at least one of the most educative and most frequented.

I have the honour to be, Sir,

Your obedient servant,

J.A. BRASSARD, D.V.Sc.,
Director.

THE LAURENTIDES NATIONAL PARK

QUEBEC, November 16th, 1938.

To the Honourable O. Gagnon, P.C., K.C.,
Minister of Mines and Fisheries,
Quebec.

Sir:-

I have the honour to submit my report for the 1938 season concerning the activities of the Laurentides National Park.

Again this year, the park was as popular as before with tourists and sportsmen. In spite of very unfavourable weather and a decrease in the tourist trade, our camps were frequented as much as last year, for 1,131 fishermen of the Province and 1,053 foreign fishermen stayed in them and 301 people fished in the park but did not stay at the camps. These figures compare very favourably with those of last year.

The following statement of receipt for the past three years clearly shows the growing popularity of the Laurentides National Park:-

1935-36	\$32,522.25
1936-37	38,810.21
1937-38	41,412.31

Fishing was particularly good in spite of unfavourable weather conditions. Several large trout were caught in the St.Urbain section as well as in Rivière aux Ecorces and Metabetchouan River. A fisherman received the cup donated by the "Province of Quebec Anglers Association", of Montreal, for a trout caught in Rivière aux Ecorces.

Game continues to increase in the park, especially beaver and bear. Beaver are so plentiful in certain parts that they have even become a nuisance. In some localities they have built dams, in consequence of which some roads were flooded. The bears, becoming quite accustomed to the presence of human beings, frequently visit certain camps and some even prowl around them in daytime. At Jacques Cartier camp, one bear was so tame that he came every day for food and even took it when proffered by hand. This was one of the pleasant pastimes at the camp and many visitors from neighbouring camps came to see and feed this bear.

Partridge was more plentiful this year, but hare, on the other hands, does not seem to have increased. Moose, always in great numbers, are much admired by visitors along the roads and on the lakes and rivers.

Fishing being without doubt the main attraction of the park, much of our efforts have been concentrated on its development. We built a new camp, during the season, at Lac des Ecorces. We already had one at this place but as it was not large enough to accommodate all our guests, it was necessary to build a second. Furthermore, so as to extend our fishing territory at this point, we shall build a small camp during the winter at Lake Erin.

The basin of the Metabetchouan river is one of the best regions for large-sized trout. We had an organization to look after fishermen but they had to live under tent. As this accommodation offered little more than the bare necessities, the territory was never very popular. Many fishermen had expressed a desire to fish there but, owing to lack of camps, had postponed their trip. This year, we built a camp with the necessary accessory buildings. This action produced favourable results, as we have already received many request for accommodation for next year.

Our camp at Hell's Gates, on the Pikauba River, is one of our most frequented camps. To satisfy all the demands, we have built another camp to accommodate two people. This camp will permit us to receive small parties and to use the other two buildings for larger ones. As the fishing territory in this locality is quite extensive, a third camp cannot affect fishing conditions.

At "Le Relais", where we have accommodation for tourists passing through the park, we built three additional camps last winter. There are now six camps at this locality, thus providing ample accommodation for tourists passing through the park.

In accordance to your desire to set apart a section of the park for young people and other visitors who prefer simply to admire nature in such peaceful surroundings rather than the pleasure of fishing, we have arranged parking grounds along the Montmorency river, some fifty

miles from Quebec, where visitors can rest and enjoy themselves. Well kept grounds are to be found there now, with shelters, open fireplaces, etc. Moreover, those who wish to fish may, for a small fee, obtain a fishing permit and rent boats. The Girl Guides did not delay in accepting your invitation to visit the park and during the summer two groups of Girl Guides spent nearly a month there. A group of Young Naturalists came to the park to study the fauna and flora. Next year, we expect to welcome a group of Scouts.

On your initiative and thanks to the cooperation of the University of Montreal, we established a biological station in the park under the direction of Doctor Vladim D. Vladykov, a well-known ichthyologist. This biological station should be most useful. It has undertaken a very thorough study of the lakes, from the viewpoint of biology, productivity, etc. It will make an inventory of most of the lakes and thus permit us to know what measures to take and what regulations to adopt to give better protection to our fish, control fishing, and keep the lakes so well stocked that it will not be necessary to have recourse to hatchery work and artificial restocking. Doctor Charles Camshell, Deputy Minister of the Federal Department of Mines and Resources, remarked to Doctor Vladykov, when visiting this biological station, that it was the first of its kind in our Canadian National Parks.

In the near future, we intend to build a saw-mill operated by a gazogene motor which will use up saw-mill debris, such as saw-dust, wood slabs, etc. Such a motor is today without doubt practical and, moreover, the initiative of using the first motor gazogene in the Province will have gratifying results as it will make it known to proprietors of sawmills who could in this way dispose of the debris which so often is a cause of pollution of streams and could lessen the danger of forest fires that is present when sawmills are built in forests.

In order to provide wood for our sawmill, we withdrew from nearby wood limits, with the consent of the lessees, a stretch of forest that will constitute a forestry reserve and where controlled cutting operations will be conducted. Thanks to this sawmill, we shall be able to secure our construction material at lower costs and to construct our camps more cheaply, thus permitting us to rent the camps at prices within the reach of everyone.

The following figures will prove the importance of the park from an economical point of view:-

The Department now has 18 establishments scattered throughout the park, composed of 42 camps for visitors and 50 accessory buildings, such as lodging for employees, storehouses, ice-houses, sheds, etc. These establishments can accommodate 230 people, not including the staff of 140 employees for the administration. The personnel is divided as follows:- 55 guardians and assistants, 35 guides, and 50 labourers. During the past season, we served 56,606 meals in these establishments whereas at our two-stopping-off places we served more than 5,000 meals to visitors and we provided accommodation to approximately 1,200 people. Apart from the necessary equipment, there are in the park more than 100 rowboats, 75 canvas canoes, 9 motors, three motor-powered canoes and three trucks. We also have 75 miles of cleared portages.

Our present camps and those we plan to built this year will be amply sufficient for the demands. For some time to come, in order to comply with your wishes, our program will be of a more social order, to help our youth by arranging more camping grounds for scouts and for young naturalists, by establishing summer colonies for children, and also by building inns along the road for the use of young people.

I have the honour to be, Sir,

Your obedient servant,

L.P. GAGNON,

Superintendent of the Laurentides National Park.

GASPE NATIONAL PARK

QUEBEC, November 16th, 1938.

To the Honourable O. Gagnon, P.C., K.C.,
Minister of Mines and Fisheries,
Quebec.

Sir:-

I have the honour to submit the second annual report on the Gaspé National Park.

The work of organizing the park was again continued this year in an active manner. The park, however, remained closed to the public.

The survey of the territory included in the park has been finished. The site of the main hotel was definitely established during the year and its construction is rapidly advancing under the direction of the architect, Mr. Lorenzo Auger. A large two-stories building, capable of accommodating 175 workmen, is already completed as well as a more finished house that will form part of the permanent buildings. Approximately 400,000 feet of wood (board measure) were prepared at our own sawmill, which is situated at the same place as the buildings. The wood will be used in these constructions.

Other work elsewhere in the park during the year included the establishing of about twenty miles of trail-routes. Five forest-ranger's camps were built along these routes. They will be occupied by our guardians and game-wardens, but they are eventually intended for the visitors to the park.

During the summer of 1938, the Provincial Service of Entomology sent a part of sixty students to the park, under the direction of experts in the matter, to conduct certain investigations concerning the saw-fly and other insects that are destructive to the Gaspé forests. We are grateful to the Minister of Lands and Forests for the interest he takes in the technical aspect of the forest and we particularly appreciate the fact that he chose our National Park as centres for these studies.

You have expressed the desire, Sir, that the Gaspé National Park be ready to receive the public as early as 1939. We have reason to believe that your wishes will be realized, for we are proceeding rapidly. At the same time, we are taking every care that success will be attained with the buildings and other constructions from the three viewpoints of economy, beauty and soundness.

According to your instructions, Sir, the architecture of our buildings is of the old-Canadian style which we happily have been able to copy in its entirety.

The Gaspé National Park is so varied and picturesque, as much as regards its mountains as its lakes and streams, that it is possible to make it one of the most beautiful parks in the world. Perhaps here better than anywhere else can we also develop an appreciation of our historical past.

I have the honour to be, Sir,

Your obedient servant,

ERNEST MENARD,
Superintendent.