

# GENERAL REPORT

OF THE

MINISTER OF MINES

OF THE

PROVINCE OF QUEBEC

FOR THE YEAR ENDING MARCH 31st

1946

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QUEBEC, September 1946.

To The Honourable  
Major-General Sir Eugène Fiset, Kt., C.M.G., D.S.O., M.D.,  
Lieutenant-Governor of the Province of Quebec.

Sir,

I have the honour to transmit to you  
the report on the activities of the Department of Mines  
for the fiscal year 1945-46.

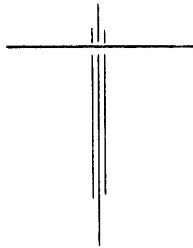
I have the honour to be, Sir,

Your obedient servant,

JONATHAN ROBINSON,  
Minister of Mines.

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REPORT OF THE DEPARTMENT OF MINES

OF THE PROVINCE OF QUEBEC

For the Fiscal Year Ending March 31st, 1946

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To the Honourable Jonathan Robinson, K.C.,  
Minister of Mines,  
Quebec, Que.

Sir,

I have the honour to submit to you a summary report on the work carried out by the Department of Mines during the fiscal year, April 1st, 1945, to March 31st, 1946. This is in conformity with the Mining Act, Section 229, Chapter 196 of the Revised Statutes, 1941, of the Province of Quebec. This legislation provides that: the Minister of Mines shall submit a statement respecting the mines in the Province, with his annual return to the Legislature.

THE MINING INDUSTRY OF THE PROVINCE

During the year under review two events of World wide importance took place: the unconditional surrender of Germany on May 8th, 1945, and that of Japan on August 9th.

These events caused the cancelling of numerous contracts for war matériel and munitions with an ensuing falling off in the demand for base metals. The result was a decrease of  $3\frac{1}{4}$  million dollars in the value of the production of metallic minerals in the calendar year 1945 as compared with 1944. However, this was more than compensated by an increase of  $4\frac{3}{4}$  million dollars on the value of industrial and building material minerals, and the total mineral production of the Province was  $1\frac{1}{2}$  million dollars higher in 1945 than in 1944. This was a step towards a return to peace conditions.

The report of the Department of Mines entitled "The Mining Industry of the Province of Quebec in 1945", gives a detailed account of mining operations and statistical tables for the calendar year 1945. As regards the first half of 1946, the same conditions obtained, that existed at the end of 1945. The production of metals for the first six months of 1946 was lower than that for the same period of 1945 in the following proportions: Gold, 8 per cent; Silver, 21 per cent; Copper, 39 per cent and Zinc,  $15\frac{1}{2}$  per cent.

On the other hand there were substantial increases in many of the non-metallic products, especially in the mineral building materials class. The following items show the proportional advances of production in the first half of 1946, as compared with the figures for 1945:- Cement increased 53 per cent; clay products (mostly building brick) 45 per cent; asbestos 3 per cent.

By far the majority of the new building construction in the latter half of the year 1945 and the first half

of 1946 was of a residential nature to meet the acute housing shortage that has prevailed from coast to coast in Canada since the end of the war. During the war years there was an almost complete suspension of such building, and there is a keen need of providing houses for the large numbers of returned men of the armed forces who are resuming civilian life.

MINERAL RIGHTS AND TITLES BRANCH

The number of miner's certificates issued during the fiscal year 1945-46 was 9,225. The number of claims recorded during the same period was 26,501, each claim having a maximum area of 40 acres. Both figures constitute all-time high records, doubling any of the years of 1925 to 1930, during the early "Abitibi rush". In that period of very active prospection the highest figures reached were for the fiscal year 1927-28, when 4,090 miner's certificates were issued and 13,707 claims staked and recorded.

J.X. Mercier is the chief of this Branch.

TABLE I

Various Titles Issued by the Department of Mines

Fiscal Years 1944-45 and 1945-46

Designation of Title	1944-45	1945-46
Claims recorded, Amos .....	12,860	17,488
" " Noranda .....	5,465	4,361
" " Quebec .....	1,222	4,652
Total .....	19,547	26,501
Miner's certificates issued .....	7,303	9,225
Development licenses issued .....	2,012	4,298
Development licenses renewed .....	2,207	4,378
Mining concessions .....	3	7
Transfer of titles .....	2,358	3,721
Reports of work: days reported .....	*90,333	336,465
Reports of work: diamond drilling, feet .....	*67,041	265,369

\*By an Act assented to May 29th, 1942, holders of claims and licenses are exempted, for the duration of the World war II and one year after, from doing assessment work. By a law passed by the Federal Parliament, the date of the end of the war was officially established as from January 1st, 1946.

TABLE II

Titles Issued Since 1930-31  
(Fiscal Years)

Fiscal Year	Number of Miner's Certif.	Number of Claims Recorded	Number of Development Licenses (1)	Mining Concessions		Transfer of Mining Rights
				Number	Acres	
1930-31	1,981	6,034	1,341	3	967	855
1931-32	2,324	8,108	906	4	1,940	425
1932-33	3,178	11,211	1,065	4	2,578	908
1933-34	3,002	10,915	1,557	4	2,627	940
1934-35	3,395	11,397	1,680	9	3,541	987
1935-36	4,043	12,962	1,770	5	2,233	1,078
1936-37	7,099	23,823	2,398	2	990	2,400
1937-38	2,718	12,918	2,932	17	4,089	1,217
1938-39	3,221	10,337	2,777	7	2,123	830
1939-40	2,181	7,325	2,320	4	1,574	555
1940-41(2)	965	3,015	1,538	2	1,029	334
1941-42	1,589	4,991	1,936	10	3,765	447
1942-43	1,710	4,420	2,107	4	569	463
1943-44	3,113	8,941	2,788	3	341	978
1944-45	7,303	19,547	4,219	3	726	2,358
1945-46	9,225	26,501	<del>4,298</del> 8676	7	2,566	3,721

- (1) Prior to June, 1937, these licenses were designated "Mining Licenses".
- (2) Interim fiscal period of nine months, owing to change in date of the commencement of the fiscal year, from July 1st to March 31st.

TABLE III

Comparative Statement of Exploration Work Performed on Claims  
and Licenses During the Calendar Years 1931-45

Calendar Year	Number of Days' Work	Footage of Diamond-Drill Holes
1931	124,050	23,486 feet
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	774,709	517,587 "
1939	549,580	299,619 "
1940	335,499	240,370 "
1941	255,352	169,110 "
1942	175,338	115,056 "
1943	40,160	25,913 "
1944	59,066	37,209 "
1945	250,846	205,991 "

## LEGISLATION

During the session of the Quebec Legislature which was held from February 13th to April 17th, 1946, an important law regarding mines and minerals was presented and assented to on April 17th. The following abstract of this law gives the main points of the measure.

By this law the Minister of Mines is authorized to grant to the "Hollinger North Shore Exploration Company, Limited" a special exploration license over a tract of land, 3,900 square miles in area, situated immediately north of the watershed which constitutes the Newfoundland-Labrador and New Quebec Territories boundary, lying to the north of the chain of lakes from Attikamagen to Menihék lakes.

This license is to be issued for a period ending June 30th, 1952. It may then be renewed for two periods of five years.

The Company shall furnish yearly to the Minister of Mines complete reports of work done, with the related maps and plans.

The Company shall spend each year during the calendar years 1947 to 1951 a sum of at least \$39,000 in exploration work.

Regular exploitation of the mining field shall begin before January 1958.

At any time before the expiration of the exploration license or its renewal, the company shall be entitled to take out an operating lease, for a period of 20 years on any area of ground, not over 300 square miles, in the tract of 3,900 square miles, paying for this lease to the Government an annual rental of \$100,000. This lease may be renewed for three other periods of 20 years.

The Company shall give preference, for employment, to available technicians graduates of universities and schools of the province of Quebec, both during the existence of the exploration license and the operating lease.

This lease may be revoked by the Lieutenant-Governor in Council if shipments of ore extracted from lands covered by the lease be interrupted for two consecutive years.

The lands under lease remain the property of the Crown, but nevertheless are subject to all obligations of Mining Concessions as defined by the Mining Law of the Province of Quebec.

## INCORPORATION OF MINING COMPANIES

More new mining companies were organized and incorporated in 1945 than in 1944. Seventy-two were incorporated under Quebec charters. In addition, 197 companies with an Ontario charter acquired mining rights in the Province of Quebec, as also did two companies with a federal charter. This brings to 271 the number of new mining companies registered to operate in the Province. It constitutes a new high of all time as the previous record was 268 which were registered in 1937. In 1944 the number was 198, of which 51 had a Quebec charter, 145 an Ontario charter and 2 a federal charter.

The list of the new companies follows:-

Mining Companies Incorporated  
by Charters of the Province of Quebec  
in the Calendar Year

1945

Company	Head Office	Date of Incorporation	Number of Shares	Par Value
Abitibi Ventures, Ltd. ...	Montreal	Oct. 23rd	3,000,000	\$ 1.
Allied Peat Moss Corp. ...	Montreal	May 22nd	9,800	\$ 5.
Alta Mines, Ltd. ....	Montreal	June 6th	3,000,000	\$ 1.
Amor Exploration, Ltd. ...	Amos	Feb. 15th	250,000	\$ 1.
Anglo-Malartic Mines, Ltd.	Montreal	April 4th	3,000,000	\$ 1.
Asbestos Producers Corp. .	Montreal	Dec. 11th	99,900	\$ 1.
Bar-Ore Mines, Ltd. ....	Val d'Or	Aug. 30th	3,000,000	\$ 1.
Bazooka Mines, Ltd. ....	Montreal	Nov. 23rd	3,000,000	\$ 1.
Beauverny Gold Mines, Ltd.	Montreal	Nov. 29th	3,500,000	\$ 1.
Bell Manitou Gold Mine, Ltd. ....	Montreal	May 26th	200	\$100.
Bourbeau Lake Mines, Ltd..	Noranda	Oct. 30th	3,000,000	\$ 1.
Bourlacourt Gold Mines, Ltd. ....	Montreal	June 12th	3,000,000	\$ 1.
Bourlamaque Central Mines, (1945), Ltd. ....	Montreal	May 2nd	4,000,000	\$ 1.
Buckingham Feldspar Inc... Buckingham Mining Corp. ..	Montreal	Aug. 20th	20,000	\$ 1.
	Montreal	Aug. 23rd	190	\$100.
Cadillac Gold Field, Ltd..	Montreal	May 26th	3,000,000	\$ 1.
Capri Gold Mines, Ltd. ...	Montreal	March 21st	3,000,000	\$ 1.
Carrière St-Maurice Incor- porée .....	Trois- Rivières	Dec. 13th	(a) 1,000 500	\$100. \$100.
Cie de Pierre de Taille Martineau, Ltée (La) ...	Montreal	Sept. 21st	1,000	\$100.
Claremont Mines, Ltd. ....	Montreal	July 3rd	3,000,000	\$ 1.
Comet Duverny Gold Mines, Ltd. ....	Montreal	March 21st	2,000	\$ 10.
Compagnie de Pétrole et Gaz Naturel du Saguenay.	Montreal	Jan. 11th	3,000,000	\$ 1.
Dalac Mines, Ltd. ....	Montreal	March 23rd	3,000,000	\$ 1.
Duval Gold Mines, Ltd. ...	Rouyn	Aug. 8th	3,000,000	\$ 1.
Duvat Gold Mines, Ltd. ...	Montreal	July 20th	3,500,000	\$ 1.
Eastcourt Gold Mines, Ltd.	<del>Montreal</del>	March 19th	3,000,000	\$ 1.
Eastville Gold Mines Co., Ltd. ....	Montreal	June 18th	3,500,000	\$ 1.
Flintkote Mines, Ltd. ....	Montreal	Jan. 3rd	15,000	\$100.
Fontana Mines (1945), Ltd..	Montreal	June 19th	3,500,000	\$ 1.
Glenallan Gold Mines, Ltd.	Montreal	June 22nd	4,000,000	\$ 1.
Goldfinch Mines, Ltd. ....	Montreal	July 5th	3,000,000	\$ 1.
Goldtrail Mines Co., Ltd..	Montreal	Dec. 20th	3,000,000	\$ 1.
Grackle Gold Mines, Ltd. .	Montreal	Sept. 12th	3,000,000	\$ 1.
Grosbeak Gold Mines, Ltd..	Montreal	Aug. 22nd	3,000,000	\$ 1.
Interprovincial Mining Corp. ....	Montreal	June 5th	3,000,000	\$ 1.
Jolin Bourlamaque Mines, Ltd. ....	Amos	June 4th	3,000,000	\$ 1.
Lencourt Gold Mines, Ltd..	Montreal	April 16th	3,000,000	\$ 1.
Les Sables des Mille- Iles, Ltée .....	Montreal	April 5th	500	\$100.

(a) Preferred shares.



Company	Head Office	Date of Incorporation	Number of Shares	Par Value
Malartic Lakeshore Gold Mines, Ltd. ....	Montreal	May 9th	3,500,000	\$ 1.
Montreal Quarry, Ltd. ....	Montreal	May 17th	1,000	\$100.
Mountain Crest Mines, Ltd.	Montreal	March 14th	4,500,000	\$ 1.
New Louvre Mines, Ltd. ...	Montreal	Oct. 10th	3,000,000	\$ 1.
Norcourt Gold Mines, Ltd..	Montreal	Feb. 21st	3,000,000	\$ 1.
Noryn Mines, Ltd. ....	Hull	May 1st	4,000,000	\$ 1.
Nugget Malartic Mines, Ltd.	Montreal	May 18th	3,500,000	\$ 1.
Obalski (1945), Ltd. ....	Montreal	Sept. 5th	3,500,000	\$ 1.
Olier Lake Mines Co., Ltd.	Rouyn	June 6th	3,000,000	\$ 1.
Opagold Mines, Ltd. ....	Montreal	March 23rd	3,000,000	\$ 1.
Pasco Maritimes Gold, Ltd.	Montreal	Aug. 28th	3,000,000	\$ 1.
Peninsular Oil Corp. Ltd..	Montreal	March 8th	2,000,000	\$ 1.
Pershcourt Goldfields, Ltd.	Montreal	June 26th	3,000,000	\$ 1.
Portage Island (Chibouga- mau) Mines, Ltd. ....	Montreal	Sept. 7th	4,000,000	\$ 1.
Quebec Explorers, Ltd. ...	Montreal	Sept. 13th	3,000,000	\$ 1.
Quebec Gold Rocks Explora- tion, Ltd. ....	Montreal	March 26th	3,000,000	\$ 1.
Quebec Precambrian Corp., Ltd. ....	Rouyn	July 31st	49,000	\$ 1.
Robinson Crusoe Placers, Ltd. ....	Montreal	July 11th	3,000,000	\$ 1.
Rosadem Mining Develop- ment, Ltd. ....	Val d'Or	Aug. 9th	2,000	\$ 10.
Royran Gold Fields, Ltd..	Montreal	March 16th	4,000,000	\$ 1.
Rupdy Mines, Limited ....	Montreal	Sept. 29th	3,000,000	\$ 1.
Seaforth Mines, Ltd. ....	Montreal	Dec. 18th	3,000,000	\$ 1.
Shawinigan Mica, Ltd. ....	Shawinigan Falls	Sept. 25th	149,000	\$ 1.
South Centremaque Gold Mines, Ltd. ....	Montreal	May 25th	3,000,000	\$ 1.
South Dufault Mines, Ltd..	Montreal	Oct. 2nd	3,000,000	\$ 1.
Torlim Mining Co., Ltd....	Val d'Or	May 25th	20,000	\$ 1.
Trump Peat Products, Ltd..	Montreal	May 22nd	9,800	\$ 1.
Victory Gold Mines, Ltd..	Montreal	Nov. 22nd	3,000,000	\$ 1.
Villedor Gold Mines, Ltd..	Montreal	May 25th	3,000,000	\$ 1.
Wendell Gold Mines, Ltd...	Montreal	Feb. 16th	3,000,000	\$ 1.
West Destor Gold Mines, Ltd. ....	Montreal	May 2nd	3,000,000	\$ 1.
Western Quebec Mines Co., Ltd. ....	Val d'Or	Jan. 3rd	3,000,000	\$ 1.
West Malartic Extension Mines, Ltd. ....	Montreal	Jan. 11th	4,000,000	\$ 1.
White Diamond Granite Co., Ltd. ....	Trois- Rivières	Dec. 12th	200	\$ 1.

Mining Companies with Ontario Charters

that Acquired Mining Rights in the Province of Quebec in

Calendar Year 1945

Company	Head Office	Date of Incorporation	Number of Shares	Par Value
Abound Gold Mines, Ltd....	Toronto	April 3rd	3,000,000	\$ 1.
Adele Malartic Mines, Ltd.	Toronto	Nov. 15th	3,000,000	\$ 1.
Adelemont Gold Mines, Ltd.	Toronto	July 6th	3,000,000	\$ 1.

Company	Head Office	Date of Incorporation	Number of Shares	Par Value
Albion Pershing Gold Mines, Ltd. ....	Toronto	July 9th	3,000,000	\$ 1.
Alger Gold Mines, Ltd. ...	Toronto	May 1st	3,000,000	\$ 1.
Amlartic Gold Mines, Ltd..	Toronto	March 5th	3,000,000	\$ 1.
Apex Consolidated Resources, Ltd. ....	Toronto	June 13th	5,000,000	None
Asher Gold Mines, Ltd. ...	Toronto	July 11th	3,500,000	\$ 1.
Astorand Mines, Ltd. ....	Toronto	Nov. 23rd	3,000,000	\$ 1.
Avila Ligneris Gold Mines, Ltd. ....	Toronto	Oct. 3rd	3,500,000	\$ 1.
Bacola Mining Explorations, Ltd. ....	Toronto	May 22nd	5,000,000	\$ 1.
Barbados Gold Mines, Ltd..	Toronto	August 2nd	3,000,000	\$ 1.
Bargold Mines, Ltd. ....	Toronto	August 8th	3,000,000	\$ 1.
Bar-Lan Gold Mines, Ltd. .	Toronto	Dec. 18th	3,000,000	\$ 1.
Beauchance Mines, Ltd. ...	Toronto	Nov. 5th	3,000,000	\$ 1.
Beaudelair Mines, Ltd. ...	Toronto	May 30th	3,000,000	\$ 1.
Belec Courville Mines, Ltd	Toronto	July 24th	3,000,000	\$ 1.
Belfast Mines, Ltd. ....	Toronto	June 27th	3,000,000	\$ 1.
Belle-Malartic Mines, Ltd.	Toronto	July 17th	3,000,000	\$ 1.
Bellevue Gold Mines, Ltd..	Toronto	June 1st	3,000,000	\$ 1.
Bilcora-Quebec Mines, Ltd.	Toronto	June 27th	3,000,000	\$ 1.
Blue-Chip Gold Mines, Ltd.	Toronto	Feb. 21st	4,000,000	\$ 1.
Bomaque Mines, Ltd. ....	Toronto	Nov. 23rd	3,500,000	\$ 1.
Bonore Gold Mines, Ltd. ..	Toronto	May 26th	3,000,000	\$ 1.
Bonville Gold Mines, Ltd..	Toronto	Feb. 23rd	3,000,000	\$ 1.
Bordulac Mines, Ltd. ....	Toronto	May 4th	3,000,000	\$ 1.
Bouchard Gold Mines, Ltd..	Toronto	Dec. 19th	3,500,000	\$ 1.
Boulder Hill Mines, Ltd..	Toronto	Nov. 27th	4,000,000	\$ 1.
Bourbon Mines, Ltd. ....	Toronto	April 17th	4,000,000	\$ 1.
Bouzan Gold Mines, Ltd....	Toronto	Feb. 17th	4,000,000	\$ 1.
Boycon Pershing Gold Mines, Ltd. ....	Toronto	April 3rd	3,500,000	\$ 1.
Bruell Consolidated Mines, Ltd.....	Toronto	July 30th	3,500,000	\$ 1.
Budco Mines, Ltd. ....	Toronto	July 25th	3,500,000	\$ 1.
Buffadison Gold Mines, Ltd.	Toronto	March 2nd	3,000,000	\$ 1.
Candego Mines, Ltd. ....	Toronto	Jan. 5th	3,500,000	\$ 1.
Carmel Pershing Mines, Ltd.	Toronto	March 7th	3,000,000	\$ 1.
Cheskirk Mines, Ltd. ....	Toronto	Oct. 4th	3,000,000	\$ 1.
Chimo Gold Mines, Ltd. ...	Toronto	Feb. 3rd	3,500,000	\$ 1.
Christo Quebec Gold Mines, Ltd. ....	Toronto	May 14th	4,000,000	\$ 1.
Cinderella Gold Mines, Ltd.	Toronto	Nov. 29th	5,000,000	\$ 1.
Clarnor Malartic Mines, Ltd. ....	Toronto	March 7th	3,000,000	\$ 1.
Clinger Gold Mines, Ltd...	Toronto	Feb. 16th	3,000,000	\$ 1.
Continental Diamond Drilling and Exploration Co., Ltd. ....	Toronto	June 4th	3,000,000	\$ 1.
Cooper Lake Gold Mines, Ltd. ....	Toronto	Feb. 1st	3,000,000	\$ 1.
Copper-Hill Mining Co., Ltd. ....	Toronto	May 31st	3,000,000	\$ 1.
Cordell Gold Mines, Ltd..	Toronto	Dec. 8th	3,500,000	\$ 1.
Courtmont Gold Mines, Ltd.	Toronto	March 16th	3,000,000	\$ 1.
Craggold Mines, Ltd. ....	Toronto	June 7th	3,000,000	\$ 1.
Croydon Rouyn Mines, Ltd..	Toronto	April 21st	3,500,000	\$ 1.
Cyprus Mines, Ltd. ....	Toronto	April 14th	3,500,000	\$ 1.
Dal Duverny Gold Mines, Ltd. ....	Toronto	Dec. 12th	3,000,000	\$ 1.
Danrod Malartic Mines, Ltd.	Toronto	Nov. 7th	3,000,000	\$ 1.
D'Aragon Mines, Ltd. ....	Toronto	May 5th	3,000,000	\$ 1.
Dastur Gold Mines, Ltd. ..	Toronto	Aug. 20th	3,000,000	\$ 1.
Deep-Ore Gold Mines, Ltd..	Toronto	Nov. 12th	4,000,000	\$ 1.

Company	Head Office	Date of Incorporation	Number of Shares	Par Value
Deseronto Mines, Ltd.....	Toronto	May 25th	3,000,000	\$ 1.
Destorada Mines, Ltd.....	Toronto	Nov. 12th	3,500,000	\$ 1.
Destorbelle Mines, Ltd....	Toronto	Nov. 23rd	3,000,000	\$ 1.
Diversified Mining Interests (Canada), Ltd. ....	Toronto	March 19th	3,000,000	None
Dolmor Gold Mines, Ltd. ..	Toronto	June 27th	3,000,000	\$ 1.
Don-X Mines, Ltd. ....	Toronto	April 14th	3,500,000	\$ 1.
Duclere Mines, Ltd. ....	Toronto	Sept. 22nd	3,500,000	\$ 1.
Dukel Gold Mines, Ltd. ...	Toronto	June 14th	3,000,000	\$ 1.
Dumar Gold Mines, Ltd. ...	Toronto	July 23rd	3,000,000	\$ 1.
Duquesto Gold Mines, Ltd..	Toronto	April 28th	3,000,000	\$ 1.
Du Reine Mines, Ltd. ....	Toronto	July 13th	3,000,000	\$ 1.
Eastchester Mines, Ltd. ..	Toronto	April 12th	3,000,000	\$ 1.
Eastview Mines, Ltd. ....	Toronto	Dec. 14th	3,000,000	\$ 1.
Elcor Gold Mines, Ltd. ...	Toronto	March 13th	3,500,000	\$ 1.
Elderidge Gold Mines, Ltd.	Toronto	May 30th	4,000,000	\$ 1.
Elmac Malartic Mines, Ltd.	Toronto	April 30th	3,000,000	\$ 1.
Elvir Gold Mines, Ltd.....	Toronto	May 31st	4,000,000	\$ 1.
Emil Oil & Mining, Ltd. ...	Toronto	June 15th	3,000,000	\$ 1.
Emory Gold Mines, Ltd. ...	Toronto	June 15th	3,000,000	\$ 1.
Flynn-Ber Gold Mines, Ltd.	Toronto	March 1st	3,500,000	\$ 1.
Forbes Yellowknife Gold Mines, Ltd. ....	Toronto	July 24th	3,000,000	\$ 1.
Fresnore Mines, Ltd. ....	Toronto	April 3rd	3,500,000	\$ 1.
Gallant Gold Mines, Ltd....	Toronto	May 7th	3,000,000	\$ 1.
Gaymont Mines, Ltd. ....	Toronto	Nov. 15th	3,000,000	\$ 1.
Glencona Mining Co., Ltd.	Toronto	April 17th	3,000,000	\$ 1.
Glenlivet Gold Mines, Ltd.	Toronto	June 19th	3,000,000	\$ 1.
Glenray Pershing Mines, Ltd. ....	Toronto	April 3rd	3,000,000	\$ 1.
Glenwood Gold Mines, Ltd..	Toronto	April 24th	3,000,000	\$ 1.
Golar Mines, Ltd. ....	Toronto	Jan. 4th	3,000,000	\$ 1.
Gothic Gold Mines, Ltd. ..	Toronto	March 5th	3,500,000	\$ 1.
Grancour Gold Mines, Ltd..	Toronto	May 9th	3,000,000	\$ 1.
Grand Calumet Mines, Ltd..	Toronto	Nov. 24th	3,000,000	\$ 1.
Grand Chibougamau Mines, Ltd. ....	Toronto	Oct. 20th	3,500,000	\$ 1.
Grande Terre Gold Mines, Ltd. ....	Toronto	May 31st	3,000,000	\$ 1.
Graydel Malartic Gold Mines, Ltd. ....	Toronto	Aug. 31st	3,500,000	\$ 1.
Graystone Gold Mines, Ltd.	Toronto	April 24th	3,000,000	\$ 1.
Grosse Pointe Exploration Co., Ltd. ....	Toronto	Feb. 1st	3,000,000	None
G.S. Eplett Mining & Development Co., Ltd. ..	Toronto	Nov. 9th	3,000,000	\$ 1.
Gubby Mines, Ltd. ....	Toronto	April 11th	3,500,000	\$ 1.
Gwillim Lake Gold Mines, Ltd. ....	Toronto	June 28th	3,000,000	\$ 1.
Habitant Gold Mines, Ltd..	Toronto	March 22nd	3,000,000	\$ 1.
Huclif Porcupine Mines, Ltd. ....	Toronto	Feb. 22nd	3,000,000	\$ 1.
Jimjon Gold Mines, Ltd. ..	Toronto	Oct. 6th	3,000,000	\$ 1.
Kalbrook Mining Co., Ltd.	Toronto	March 20th	4,000,000	None
Kenroy Malartic Mines, Ltd.	Toronto	Jan. 5th	3,000,000	\$ 1.
Kiska Gold Mines, Ltd. ...	Toronto	Jan. 16th	3,000,000	\$ 1.
Knobhill Gold Mines, Ltd..	Toronto	Oct. 1st	4,000,000	\$ 1.
Kyle Gold Mines, Ltd. ....	Toronto	Sept. 14th	4,000,000	\$ 1.
K-Zone Fault Mines, Ltd....	Toronto	March 16th	3,000,000	\$ 1.
Lac D'Or Mines, Ltd. ....	Toronto	Nov. 16th	3,000,000	\$ 1.
Lake Macamic Mines, Ltd..	Toronto	March 1st	3,000,000	\$ 1.
Lapexco Gold Mines, Ltd...	Toronto	April 11th	3,000,000	\$ 1.
Lasidon Gold Mines, Ltd...	Toronto	Nov. 22nd	3,000,000	\$ 1.
Lebon Gold Mines, Ltd. ...	Toronto	April 24th	3,000,000	\$ 1.

Company	Head Office	Date of Incorporation	Number of Shares	Par Value
Lepine Lake Gold Mines, Ltd. ....	Toronto	Sept. 10th	3,500,000	\$ 1.
Lorie Mines, Ltd. ....	Toronto	Oct. 4th	3,000,000	\$ 1.
Louvibec Mines, Ltd. ....	Toronto	Feb. 7th	3,000,000	\$ 1.
Ludlow Gold Mines, Ltd. .	Toronto	April 24th	3,000,000	\$ 1.
Lynalda Gold Mines, Ltd..	Toronto	Oct. 25th	3,500,000	\$ 1.
Macbart Mines, Ltd. ....	Toronto	Aug. 31st	3,000,000	\$ 1.
Maccord Quebec Mines, Ltd.	Toronto	April 25th	3,000,000	None
MacClare Mines, Ltd. ....	Toronto	May 5th	3,000,000	\$ 1.
Madonna Mines, Ltd. ....	Toronto	May 7th	3,000,000	\$ 1.
Magnum Gold Mines, Ltd. .	Toronto	March 16th	3,000,000	\$ 1.
Mainbreak Gold Mines, Ltd.	Toronto	Jan. 24th	3,000,000	\$ 1.
Malbec Gold Mines, Ltd....	Toronto	May 25th	3,000,000	\$ 1.
Mallich Quebec Gold Mines, Ltd. ....	Toronto	June 2nd	3,500,000	\$ 1.
Marillac Rouyn Mines, Ltd.	Toronto	January 8th	3,500,000	\$ 1.
Megiscane Mines, Ltd. ...	Toronto	Dec. 21st	3,500,000	\$ 1.
Mid-Pershing Gold Mines, Ltd. ....	Toronto	March 2nd	3,000,000	None
Milerlaun Rouyn Gold Mines, Ltd. ....	Toronto	May 1st	3,500,000	\$ 1.
Mirival Gold Mines, Ltd..	Toronto	March 17th	3,000,000	\$ 1.
Mitto Pershing Mines, Ltd.	Toronto	April 3rd	3,000,000	\$ 1.
Monitor Gold Mines, Ltd..	Toronto	Dec. 12th	4,000,000	\$ 1.
Montdono Gold Mines, Ltd.	Toronto	April 25th	3,000,000	\$ 1.
Morwick Mining Developments, Ltd. ....	Toronto	April 30th	40,000	\$ 1.
Mount Cheminis (1945) Mining Co., Ltd. ....	Toronto	May 4th	3,000,000	\$ 1.
Mozart Gold Mines, Ltd....	Toronto	Dec. 7th	3,000,000	\$ 1.
Norocona Gold Mines, Ltd.	Toronto	July 3rd	3,000,000	\$ 1.
Opawica Gold Mines, Ltd..	Toronto	Aug. 1st	3,000,000	\$ 1.
Packard Pershing Mines, Ltd. ....	Toronto	March 26th	3,000,000	\$ 1.
Pepmont Gold Mines, Ltd..	Toronto	May 22nd	3,500,000	\$ 1.
Perma Gold Mines, Ltd. .	Toronto	Jan. 8th	3,000,000	\$ 1.
Pershlant Gold Mines, Ltd.	Toronto	Nov. 22nd	3,000,000	\$ 1.
Pershon Gold Mines, Ltd..	Toronto	March 1st	3,500,000	\$ 1.
Petitclerc Mines, Ltd. .	Toronto	March 24th	3,000,000	\$ 1.
Pink Lake Mica Mines, Ltd.	Toronto	Sept. 20th	1,000,000	\$ 1.
Pinnacle Gold Mines, Ltd..	Toronto	April 6th	3,000,000	\$ 1.
Pitt Gold Mining Co., Ltd.	Toronto	Jan. 23rd	5,000,000	\$ 1.
Plexore Rouyn Gold Mines, Ltd. ....	Toronto	Nov. 24th	4,000,000	\$ 1.
Pontibi Gold Mines, Ltd..	Toronto	Sept. 13th	3,000,000	\$ 1.
Quejo Mines, Ltd. ....	Toronto	March 21st	3,000,000	\$ 1.
Quesabe Mines, Ltd. ....	Toronto	July 6th	3,500,000	\$ 1.
Quevay Gold Mining, Ltd..	Toronto	June 21st	100,000	\$ 1.
Quintal Quebec Gold Mines, Ltd. ....	Toronto	May 14th	3,000,000	\$ 1.
Ranrouyn Mines, Ltd. ....	Toronto	Nov. 15th	3,000,000	\$ 1.
Ray-Lac Gold Mines, Ltd..	Toronto	March 22nd	3,000,000	\$ 1.
Realore Gold Mines, Ltd..	Toronto	Jan. 10th	3,000,000	\$ 1.
Record Rouyn Mines, Ltd..	Toronto	May 25th	3,000,000	\$ 1.
Resenor Gold Mines, Ltd..	Toronto	June 11th	3,000,000	\$ 1.
Rexterra Gold Mines, Ltd.	Toronto	Jan. 6th	3,000,000	\$ 1.
Ricenor Gold Mines, Ltd..	Toronto	June 14th	4,000,000	\$ 1.
Richcour Gold Mines, Ltd.	Toronto	April 4th	3,000,000	\$ 1.
Rockridge Gold Mines, Ltd.	Toronto	July 10th	3,000,000	\$ 1.
Roulette Gold Mines, Ltd.	Toronto	May 11th	3,000,000	\$ 1.
Ruscana Mines, Ltd. ....	Toronto	June 22nd	3,000,000	\$ 1.
Russian Kid Mining Co., Ltd. ....	Toronto	March 14th	4,000,000	\$ 1.
Sabourin Creek Mines, Ltd.	Toronto	April 6th	3,000,000	\$ 1.

Company	Head Office	Date of Incorporation	Number of Shares	Par Value
Sencon Gold Mines, Ltd...	Toronto	May 25th	3,000,000	\$ 1.
Sevcour Gold Mines, Ltd..	Toronto	July 23rd	3,500,000	\$ 1.
Shawkey (1945) Mines, Ltd.	Toronto	May 4th	3,000,000	\$ 1.
Silveryn Gold Mines, Ltd.	Toronto	June 8th	3,000,000	\$ 1.
Simon Lake Mines, Ltd. ..	Toronto	March 2nd	3,000,000	\$ 1.
Southvue Gold Mines, Ltd.	Toronto	Nov. 30th	3,000,000	\$ 1.
Stanmac, Ltd. ....	Toronto	Sept. 26th	500,000	None
Stormont Gold Mines, Ltd.	Toronto	April 3rd	3,000,000	\$ 1.
Tag-Alder Mines, Ltd. ...	Toronto	Jan. 27th	5,000,000	\$ 1.
Templor Mines, Ltd .....	Toronto	April 24th	4,000,000	\$ 1.
Thorn Hill Gold Mines, Ltd	Toronto	Jan. 27th	4,000,000	\$ 1.
Tiblemont Goldfields, Ltd.	Toronto	May 22nd	3,000,000	\$ 1.
Tiblemaco Gold Mines, Ltd.	Toronto	Nov. 30th	3,500,000	\$ 1.
Ticonda Gold Mines, Ltd..	Toronto	June 29th	3,000,000	\$ 1.
Transbec Mining Co., Ltd.	Toronto	May 31st	5,000,000	\$ 1.
Transterra Mines, Ltd. ..	Toronto	Jan. 31st	5,000,000	\$ 1.
Tromac Mines, Ltd. ....	Toronto	April 11th	3,500,000	\$ 1.
Trueborn Gold Mines, Ltd.	Toronto	May 2nd	3,000,000	\$ 1.
Twin Fault Mines, Ltd....	Toronto	March 23rd	3,000,000	\$ 1.
Vanacor Gold Mines, Ltd..	Toronto	April 12th	3,000,000	\$ 1.
Vaqqourt Gold Mines, Ltd.	Toronto	June 7th	3,000,000	\$ 1.
Vicour Mines, Ltd. ....	Toronto	March 27th	5,000,000	\$ 1.
Vilaroi Gold Mines, Ltd..	Toronto	April 16th	3,000,000	\$ 1.
Villaur Gold Mines, Ltd..	Toronto	April 5th	3,000,000	\$ 1.
Villbona Gold Mines, Ltd.	Toronto	March 21st	3,000,000	\$ 1.
Villebec Gold Mines, Ltd.	Toronto	Oct. 1st	3,500,000	\$ 1.
Wembley Gold Mines, Ltd..	Toronto	June 15th	3,000,000	\$ 1.
Westville Mines, Ltd. ...	Toronto	June 20th	3,500,000	\$ 1.
West Wasa Mines, Ltd. ...	Toronto	March 21st	3,000,000	\$ 1.
Wilbec Gold Mines, Ltd. ..	Toronto	June 5th	3,000,000	\$ 1.
Wilnora-Malartic Gold Mines .....	Toronto	May 5th	3,000,000	\$ 1.
Yalta Gold Mines, Ltd. ..	Toronto	May 5th	3,000,000	\$ 1.
Yeoman Gold Mines, Ltd...	Toronto	July 4th	3,000,000	\$ 1.
Zakor Gold Mines, Ltd. ..	Toronto	Feb. 12th	3,000,000	\$ 1.

Mining Companies Incorporated by Dominion  
Charters in 1945 which Acquired Mining Rights in  
the Province of Quebec

Company	Head Office	Date of Incorporation	Number of Shares	Par Value
Orford Marble Co., Ltd...	Montreal	Aug. 27th	(a) 400 800	\$100. 10.
Titanic Mine Holdings, Ltd. ....	Montreal	April 13th	3,000,000	None

(a) Preferred shares.

COLLECTION OF DUES ON MINES

During the fiscal year 1945-46, sworn returns of production were received from forty-five (45) mining companies. These reports also gave full information on operations during the year, as required by the Quebec Mining Act, and included a statement of the profits made during the fiscal year, accompanied by vouchers, as required by division III, sections 12 to 24 inclusively, of the Act. These profits are subject to a duty collected by the Department of Mines. In 1945-46, the amount collected from this source was \$1,330,679.54.

Section 50, division VIII of the Mining Act states that a tax of 10 cents an acre shall be paid on mining concessions which remained idle during the calendar year. From this source, \$2,546.41 was collected from eighty-seven (87) holders of mining concessions. Sworn statements were received from one hundred and thirty (130) other holders of concessions, to the effect that at least \$200 was expended during the year in mining work on each concession held by them. This is the statutory condition for remittal of the acreage tax.

S. Drouin is in charge of the collection of dues on mines.

TABLE IV

Comparative Statement of Revenue Collected by the  
Department of Mines in the Fiscal Years 1943-44 to 1945-46

(Prepared by Robert Samson, Chief Accountant)

	1943-44	1944-45	1945-46
Miner's certificates	\$ 31,430.00	\$ 67,280.00	\$ 85,420.00
Development licenses	138,462.18	255,152.46	500,468.63
Mining concessions	1,314.85	5,250.00	16,447.25
Fees for transfer of titles .....	9,500.00	23,519.00	37,215.00
Dues on mining con- cessions .....	1,966.64	3,114.99	2,565.81
Dues on village lots	2,291.15	6,837.87	15,462.89
Dues on profits of mines .....	1,855,220.23	1,684,632.32	1,330,679.54
Sale of unwrought metal licenses ...	50.00	26.00	18.00
Sale of maps, blue- prints, etc. ....	1,268.54	3,560.45	4,938.55
Sale of mineral collections .....	148.50	78.00	421.50
Assay fees .....	301.45	381.05	7,376.70
Sampling plant - Rent and sale of supplies .....	3,802.38	2,483.13	1,916.00
Miscellaneous .....	71.09	149.90	782.90
Casual revenue .....	137.96	2,951.63	4,648.83
<b>Total .....</b>	<b>\$2,045,964.97</b>	<b>\$2,055,416.80</b>	<b>\$2,008,361.60</b>

GEOLOGICAL SURVEYS BRANCH

This Branch of the Department, with I.W. Jones as its chief, has as its principal function the geological mapping of the Province, that is, the investigation of the nature, distribution, and structural relations of the rock formations in various sections of the country. Its eventual aim is to make available geological reports and maps of the entire Province. The investigations on the ground are carried on during the summer and autumn months by qualified geologists whose time during the succeeding months of winter is largely taken up with the compilation of their maps, the preparation of their reports, and the considerable research and office study connected therewith.

Particular attention is given during these investigations to the mineral possibilities of the regions studied, so that the resulting reports and geological maps may serve as a guide to prospectors and other geologists in their search for mineral deposits. As the work is of such a nature, however, that the government geologists are among the first people to enter a new, unexplored region and because, even in settled districts, they have occasion to cover the areas in a thorough fashion, their geological reports and maps are much in demand for the information they contain on a wide variety of subjects relating to the physical character and natural resources of the regions explored.

There was no improvement in the serious situation, noted in the annual reports for the two preceding years, relative to the scarcity of geologists and other qualified personnel who are required for the very large and essential task of geologically surveying the immense, as yet mostly unexplored territory comprised in this Province. As geologists are also much in demand by mining and exploration companies, government surveys are finding it increasingly more difficult to maintain and build up their staffs with the few geologists available and the relatively few additional ones that are expected to become qualified over a period of several years to come.

During the fiscal year covered by this report, seven geologists were engaged on various projects of this Geological Surveys branch, only two of them being of its permanent staff while the five others had to be recruited on a temporary basis from outside sources, mostly from university teaching staffs. These geologists and the objects and results of their work were as follows:

H.W. McGerrigle - Completion of a reconnaissance geological exploration of western Gaspé peninsula, counties of Matane, Matapedia and Bonaventure. In addition, geological traverses were made along roads constructed in recent years by various timber companies and others in eastern Gaspé, and along some of the valleys of rivers flowing into the St. Lawrence on the north side of the peninsula. As a result of the work of this and preceding years, it is now possible to have much more information on Gaspé peninsula as a whole than was previously available. Dr. McGerrigle also spent considerable office time in examining and recording the nature of the rocks encountered in deep-drilling operations that were conducted by private enterprise in the search for oil and gas in the Gaspé and Lake St. John districts.

J. Claveau - Reconnaissance of the upper Romaine river and its tributaries. This work, which covered a strip of territory extending northward about 70 miles from latitude  $51^{\circ}05'$  and having a width of 10 to 20 miles, was a continuation of a similar reconnaissance made for the Department by Dr. J.A. Retty in 1941 (P.R.171). One of the principal objects in this work was to study the natural resources along a route that possibly some time would be followed to tap the rich iron deposits lying farther north in Labrador and New Quebec, and to study the feasibility of the route itself. Much geological and other information was gathered on a hitherto little known region. Dr. Claveau further found that a twenty-three mile stretch of the river valley is inaccessible, even to the extent of not be passable on foot during the summer months.

T.H. Clark - Continuation of the geological mapping of the St. Lawrence lowlands between Montreal and Quebec. During the summer of 1945, Dr. Clark completed the third year of his work in that part of the region which lies south of the St. Lawrence. One of the main objects of this work is to determine the petroleum and natural gas possibilities of the area, but at the same time considerable information is being obtained on the depth and nature of surface deposits encountered when wells have been drilled for water supply.

F.F. Osborne - A geological investigation of an area of about 200 square miles, mostly in the Laurentian region in the vicinity of New Glasgow and St. Lin. The area, comprising parts of Terrebonne, L'Assomption and Montcalm counties, is bounded by longitudes  $73^{\circ}45'$  and  $74^{\circ}00'$  and by latitudes  $44^{\circ}45'$  and  $46^{\circ}00'$ . Dr. Osborne also examined some occurrences of natural gas near the village of L'Assomption.

E. Aubert de La Rüe - Continuation of the geological mapping of the Laurentian region bordering Gatineau and Lièvre rivers in the counties of Gatineau and Labelle. In 1945, Dr. Aubert de La Rüe investigated an area of about 200 square miles, bounded by longitudes  $75^{\circ}45'$  and  $76^{\circ}00'$  and by latitudes  $46^{\circ}00'$  and  $46^{\circ}15'$ , and comprising parts of the townships of Cameron, Blake, Northfield, Bouchette, Wright, Wabasse and Hincks. A zinc deposit was discovered during the course of this investigation; other deposits in the area are those of iron, graphite, garnet, kaolin, mica, building stone, clay, sand, and gravel.

R. Béland - Geological mapping of the Taibi Lake area, Abitibi-East county, about 75 miles north of the nearest railway point at Senneterre. Dr. Béland covered an area of about 290 square miles extending between longitudes  $77^{\circ}28'$  and  $77^{\circ}45'$  and southward from latitude  $49^{\circ}30'$  to an irregular line about nine miles south of latitude  $49^{\circ}15'$  to join work previously done for the Department in 1937.

C. Faessler - Surface geology and water supply problems. As pointed out in a previous report, requests for advice and opinion on problems of water supply - problems which are essentially of a geological nature - have increased to the point where they make a considerable demand on the time of the staff, both in the office and in the field. The problems have such a wide-spread prevalence and are of such importance that a permanent geological staff should be available to deal with them and the many engineering problems to



which a knowledge of surface geology is essential. Dr. Faessler, in gathering data on water-wells in parts of Quebec and Portneuf counties, was available only on a temporary, part-time basis, but a start was made in accumulating the large amount of information that needs to be recorded on this subject.

Members of the geological staff represented the Department at various gatherings of engineers and prospectors during the year. All members of the geological staff took an active part in the annual general meeting of the Canadian Institute of Mining and Metallurgy, held in Quebec City in April, 1945. In October of that year, Dr. Jones represented the Department at the annual western meeting of this Institute in Edmonton, Alberta. Drs. McGerrigle and Claveau contributed papers to the Toronto annual meeting of the Prospectors and Developers Association in March, 1946, the first dealing with geology and mineral deposits of Gaspé peninsula, and the second with those of the North Shore region. Both papers created considerable interest in these regions and they were subsequently printed by the Canadian Mining Journal.

In addition to his administrative duties in connection with the various geological investigations mentioned above and with other matters in the Department, Dr. Jones had frequent occasion to deal with requests for information concerning the geology of the Province and related subjects. Under his administration there also fall the Departmental Library and the Equipment Section, reports concerning the activities of which are given separately further on.

#### MINERAL DEPOSITS BRANCH

Bertrand T. Denis, chief of this Branch reports as follows on the work carried out during the past fiscal year:-

Under this Branch, geological investigations are made of mineral occurrences, mining properties, or mining districts with a view to furthering the development of the mineral industry within the Province. Technical advice is given to prospectors and to companies engaged in exploration and development.

A significant step forward was taken in February, 1946, by the appointment of W.G. Robinson as resident geologist to the western half of the Western Quebec mining belt. This officer has set up his headquarters in Noranda. The chief function of the resident geologist will be to compile and to correlate all the geological information brought to light in the course of mining exploration in his district.

During the summer and early autumn seven parties were in the field. The principal factor limiting the field work of the Branch is the lack of trained personnel; this applies to the selections both of party chiefs and of technical field assistants.

P.E. Auger commenced a detailed study of an area in Témiscamingue county, centered around the Belleterre mine in Guillet township. Sheet No.1 of the Belleterre map-area was completed.

P.E. Bourret, Industrial Minerals Technologist, examined 83 mines, quarries and prospects, in the southern part of the province. The purpose of these visits was to advise the owners on the economic value of the deposits concerned, and to furnish information regarding development, mining and milling operations and the marketing of their products. The minerals or substances involved were:- brucite (1), calcite (1), clay (5), chrome (1), dolomite (2), feldspar (6), fluospar (1), garnet (1), gas and oil (3), gold (3), granite (5), gravel (1), kaolin (1), lead and zinc (4), limestone (6), magnesite (2), marble (10), molybdenite (4), mica (13), ochre (3), phosphate (5), quartz (3), sandstone (2).

These investigations included the surveying and examination of the underground workings at the High Rock Phosphate mine in Portland township, and also the surveying and examination of marble deposits in the Ste-Thècle-St-Tite area.

J.P. Drolet made a systematic survey and detailed study of the large peat bog areas of St.Fabien, Rimouski county.

R.B. Graham continued the detailed geological study of the strip of territory in Duparquet and Hébécourt townships with a view to tracing a structural zone of metallic mineralization as far as the western boundary of the Province. The Beattie and the Donchester mines as well as several promising mineral prospects lie along this zone. In order to facilitate completion of this programme of geological mapping the strip of territory which it covers, twenty miles long by six miles wide, was mapped by aerial survey on the scale of 500 feet equals one inch.

W.N. Ingham made geological examinations of fifty-one mining properties under development in the eastern half of the Western Quebec mining belt. This party made its headquarters at Val d'Or.

S.H. Ross made geological examinations of fifty-two mining properties under development in the western half of the Western Quebec mining belt. This party made its headquarters at Rouyn.

G.W. Waddington commenced the examination and sampling of marl deposits in the southern part of the province. This work has been undertaken at the suggestion of the Department of Agriculture. Information was gathered on 56 deposits, and it is estimated that this season's investigations about cover half of the work to be done in this field.

Henri Girard closely followed developments in the peat industry throughout the Province and at frequent intervals gave technical advice to each of the fifteen operators engaged in the production of peat.

#### DIVISION OF TECHNICAL INFORMATION

Jean Morency, mining engineer, is in charge of this Division, which was created to carry on and expand the work previously done by a sub-division.

Mr. Morency reports that, during the fiscal year, his Division attended to correspondence requesting various data concerning 138 mining companies, and replied to 148 letters received from the interested public in which information was sought on many questions concerned with the geology, mineral deposits, mining, and prospecting in the Province.

At the request of the Registrar of the Quebec Securities Act, the Division carefully examined 39 technical reports in connection with the application of the Act, and furnished the Registrar with comments on these reports.

The Division received numerous manuscript reports and plans from the technical officers of the Department, and also documents from outside mining engineers and other technicians. These were all classified and indexed, in order to be easily available for reference.

Routine duties of the Division include the following:

It collects, compiles, and classifies items of interest concerning the mining industry and mining companies, clipped from technical periodicals and newspapers.

It keeps the plans and records of all underground mine workings, which, in conformity with the provisions of the Quebec Mining Act, mining companies must send in to the Department. Such plans and records, covering work completed during the year ended December 31st, 1945, were received from 37 mining companies.

It keeps copies of advertisements and of various articles published by or concerning the Department.

It attends to the distribution of the publications of the Department. In the course of the fiscal year under review, the staff of this Division sent out 18,650 copies of our various publications, in response to 3,605 written requests received from the interested public. In addition, 2,760 reports and other publications were given to 723 visitors who came personally to the Department.

Eight new publications of the Department, to the number of 22,300 copies, were received from the printers during the year. Of these copies 14,150 were of the French versions and 8,150 were of the English versions of the publications.

The Division mailed 733 heavy parcels during the year and received 1,510 parcels addressed to the Department, which were distributed to the various branches and divisions for which they were intended.

#### INSPECTION OF MINES BRANCH

The duties of this Branch, of which R.H. Taschereau is chief, may be summarized as follows:

1.-The application of the Quebec Mining Act in general, and especially as it concerns the following sections:

- (a) Section 198.-Inspection of mines, quarries and gravel pits.
- (b) Section 13.-Sites of projected treatment plants.
- (c) Section 123.-Tailings sites.
- (d) Section 196.-Accident reports.
- (e) Section 35.-Use of mining concessions for purposes other than mining.
- (f) Section 70.-Buildings on Crown Lands.
- (g) Section 201.-Report to the Minister.
- (h) Section 199.-Plans of mining properties.

2.-The examination of mines and quarries with a view to keeping the Department generally informed on the progress of the mineral industry.

3.-The application of the Unwrought Metal Sales Act.

4.-Special duties assigned by the Minister.

The Province is divided into six mine inspection districts, as follows:

(1) The Eastern Townships, from the Richelieu river eastward to and including Lévis and Dorchester counties.

(2) The counties of Gatineau, Labelle, Papineau and Argenteuil, and the area south of the forty-sixth parallel of latitude in Pontiac county.

(3) The area comprising the counties east of Joliette, to the north of the St-Lawrence river.

(4) The area east of Lévis and Dorchester counties, to the south of the St-Lawrence river, including the peninsula of Gaspé.

(5) The city of Montreal, and the immediate surrounding area.

(6) Western Quebec, comprising the counties of Abitibi-East, Abitibi-West, Rouyn-Noranda and Témiscamingue.

During the fiscal year under review, there were several staff changes in this Branch. Mr. Lucien Lavigne, Inspector of Mines for the No.1 and No.2 inspection districts, was released from the Active Army, and resumed his duties with the Department. At the end of the calendar year 1945, Mr. Lavigne resigned to accept a position with a mining company.

Mr. Jules Leblanc, who has acted in the capacity of Consulting Electrical Engineer to the Department for the past several years, resigned from these duties on his appointment as Chief Engineer of the Rural Electrification Board.

Mr. E. Jolin, Mine Constable in District No.6, also resigned during the year to engage in private work.

Additions to the staff in the twelve-month period under review included Mr. A.G. Michaud, who replaced Mr. Lavigne as Inspector of Mines, and Mr. Marcel Papineau, who is assisting the Inspector of Mines in the Western Quebec district. At the close of the fiscal year, the staff of the Branch was therefore as follows:

Chief Inspector of Mines - R.H. Taschereau  
Inspector of Mines (District No.6) - M.O. Lafontaine  
Mining Engineer (District No.6) - Marcel Papineau  
Inspector of Mines (District No.5) - Jean de Péron  
Inspector of Mines (Districts 1 and 2) - A.G. Michaud  
Mine Constable (District No.6) - E.O. Larivière  
Mine Constable (District No.1) - Arthur Baillargeon

The mine constables assisted the inspectors in various phases of their work, and carried out other duties assigned to them by the Minister.

In the calendar year 1945, the accident frequency rate in mines and quarries, based on the number of compensable accidents per thousand men employed, was 126.8, a slight decrease from the figure for the previous year. The fatal accident frequency rate of 1.6 per thousand full-year workers was normal. In accordance with the provisions of Section 196 of the Mining Act, all compensable accidents are reported by the mine and quarry operators to the inspectors, and the latter classify these reports and forward them to the Quebec office. In the case of accidents of a very serious nature, even where no loss of life may have occurred, the inspector makes a thorough investigation and report. These reports, in both languages, are multigraphed, and copies are forwarded to the mine and quarry operators, and to other parties interested in mine safety work.

In the calendar year 1945, a total of 18,567 men were employed in the mining industry of the Province, an increase of 0.4 per cent over the figures for the previous year. There were 707 inspections made of mines, quarries and gravel pits, and reports on these properties were transmitted to the Department with information concerning developments and the safety of workmen.

Approval of the site of a treatment plant was granted to Flintkote Mines, Limited, by Order in Council, and this Company commenced the erection of an asbestos mill in the township of Thetford.

Permission to ship concentrates outside the Province for treatment, as required under Section 13 of the Mining Act, was granted to the following companies:

Golden Manitou Mines, Limited  
Molybdenite Corporation of Canada, Limited  
New Calumet Mines, Limited  
Normetal Mining Corporation, Limited  
Waite-Amulet Mines, Limited

No applications were received for approval of tailings sites during the fiscal year under review.

Twenty-nine certificates in First Aid to the Injured were presented to employees of Waite-Amulet Mines, Limited, who had successfully completed courses in this subject.

Under the provisions of the Unwrought Metal Sales Act, nine new licenses were issued during the fiscal year. Monthly reports of transactions were received from twenty-eight license holders.

#### DRAUGHTING AND CARTOGRAPHY BRANCH

This Branch is in charge of Léon Valois who has Armand Blanchette as assistant-chief. Seven draughtsmen are employed, an assistant-draughtsman and a stenographer, forming a staff of eleven.

During the year topographical base-maps were prepared for the geological field parties of the department of Mines, and several geological maps and plans were compiled from notes of previous field-work and prepared for printing and publication.

This Branch also does all the drawing of plans and the compilation of maps required by all the other branches and divisions of the department of Mines.

The Branch keeps strictly up to date two sets, or series, of tracings on linen. On one of these series of tracings are plotted all mining "claims" staked out and recorded, and on the other the boundaries and land-marks of the properties of mining companies. Each individual tracing in both series, covers the area of one township, approximately 100 square miles. The first series, of claims staked out, consists of 366 tracings, on which 26,501 new claims were plotted during the year under review. The second set comprises 104 tracings. From these 13,448 blue-prints or white-prints were struck off.

The following geological maps were prepared during the year, and their printing in colours supervised, by the Branch.

Map No.602.-Matamec Area  
Map No.605.-Castagnier Area

At the end of March 1946, the printing of the following maps were in course of publication at lithographing establishments.

Map No.544.-Nomingue Area  
Map No.545.-Sicotte Area  
Map No.604.-Tonnancourt-Holmes Area  
Map No.615.-Wetetnagami River Area  
Map No.616.-Wetetnagami Lake Area

In addition to the above coloured geological maps, ten preliminary maps were printed in black and white to accompany the preliminary reports of some of the geological field-work carried out in the seasons of 1944 and 1945.

Moreover, nine other geological plans, not to be published, were traced on linen by the draughting staff.

Two editions of a special map of the Abitibi Mining region, indexed under Nos.612 and 620 were prepared to be used as indexes to the tracings of the Western Quebec townships. These index maps show the location of mining properties held by mining companies. A similar map for the Chibougamau Mining region (No.625) is in preparation.

Various other draughting work such as plans of office furniture, of machines, graphs, and other drawings were made for the needs of the department of Mines.

#### DIVISION OF MINERAL STATISTICS

The main function of this Division, which is in charge of C.O. Beaudet as chief, is to collect and compile monthly and annual statistics of mining production and activities of the mining industry. To this end first hand information and figures are obtained directly from operators of mines and of quarries of mineral substances. This work entails:- keeping up to date a complete list of operators of mines, of quarries, sand pits of the Province; the preparation of numerous forms of reports and various returns, as well revising them to meet new needs and conditions; the mailing to operators the appropriate forms and requests for the necessary information; the examination of these forms when they are returned filled-in, and the ensuing correspondence when they are incomplete or faulty; the careful compilation of the information and figures of production which they contain.

The compiled annual statistics of production are published in the annual report of the department of Mines entitled "The Mining Industry of the Province of Quebec". Some of the monthly statistics, as well as the quarterly ones, which are published as bulletins, at regular monthly and quarterly intervals, are mailed to the newspapers, to companies, and to individuals, who have expressed the wish to receive them, when they are issued.

The filled-in returns, on the regulation blank forms which are mailed to operators by the department of Mines, are used as the basis of the mineral statistics of the year in question. These forms call for the following information:- the quantity and the value of the shipments of products, frequently divided up as to nature of products, or as to their destination; the number of employees in the personnel of the administration and the amount of their salaries; the number of workmen employed and the total number of days-work they have put in and the amount paid to them in wages and salaries; the quantity and cost of various forms of fuels used and the cost of the electricity consumed, as well as the cost of other supplies used in the mining operations; the dividends paid during the year; the number of motors of each kind used, and their total capacity in H.P. Some of the mines, such as the asbestos mines, the gold mines, and the mines of industrial metals, must state in addition the quantity of ore hoisted from the mine, and the tonnage passed through the concentrator or other mill, for treatment; the amounts paid as taxes to the Federal, Provincial and Municipal authorities; the disbursements paid on account of workmen's compensation and unemployment insurance; the cost of supplies, machinery, tools, and construction.

In order to obtain the necessary information and data to establish the statistics for the year 1945, this Division sent out requests for the needed returns, to 2,763 operators, and in numerous cases had to repeat the demand again and again. In final count, 2,608 answers were received, of which 1,098 reported production, or shipments of products, 477 returns stated that only work of prospecting or of development was effected, and 1,033 answered that no work of any kind had been done during the year. The addressees of 155 requests, or 5.6 per cent, neglected to answer. A very small proportion of these delinquents could have been of any importance, and the large majority of them were inactive during the year. Building contracts and contracts of road construction frequently cause the temporary opening of gravel pits or sand pits, and occasionally of stone quarries. In order to ascertain if there had been any operations of this nature of which this Division had not been apprised, and for the purpose of obtaining information in this regard, special forms were sent to 188 such contractors asking them for the source of the stone, gravel or sand used by them during the year, and we received 164 answers to our requests.

The returns used in compiling the monthly statistics give only the shipments of quantities of products, and in certain cases, the quantities of production and stocks on hand. We get them only from the main operators. In 1945, we received regularly such monthly reports from some 60 producers.

The department of Mines wishing to obtain some idea of what funds were available, for prospecting and developing mining properties, this Division also collected information and data enabling to determine the net amount of funds received in 1945, by mining companies operating in Quebec, from sale of their own shares, and of bonds issued, as well as from long term loans. To this end a questionnaire was addressed to 788 companies, of which 691 gave the information asked for.

As a result of this enquiry it seems that in the calendar year 1945, the total amount of funds received from these three sources by the treasuries of mining companies, operating mines or holding mining rights in the Province of Quebec, reached \$26,250,000 in round numbers. For 1944, from 568 questionnaire forms sent out, 470 answers were received giving a total of \$9,800,000, for the calendar year 1944.

Lastly, the Division carried out an enquiry regarding the timber and wood, other than for fuel, used by the mines of the Province. For this purpose requests were sent to 199 mining companies and answers were received from 189.



LABORATORIES BRANCH

This Branch of which Maurice Archambault is chief, comprises: (I) the department of Mines laboratories in Quebec city, Montreal and Thetford Mines; (II) the sampling and ore dressing plants near Val d'Or; (III) lectures for prospectors; (IV) the departmental museum; (V) Quebec mineral displays at exhibitions.

I.-Chemistry, Spectrography, Mineralogy

During the fiscal year, 20,370 samples were received at the departmental laboratories on which 47,719 assays, analyses and determinations were made, including microscope and spectrograph examinations. These operations were distributed as follows:

Laboratory	No. of Samples Received	Assay Coupons Received	Quantitative Analyses			Qualitative Determinations	Spectro-graphic Examinations	Totals
			Analyses for Department	Paid Analyses	Coupon Assays			
Quebec..	18,517	6,796	5,260	12,676	6,465	16,623	3,705	44,729
Montreal	1,498	1,093	---	1,070	1,093	26	---	2,189
Thetford Mines..	365	---	801	---	---	---	---	801
Totals..	20,370	7,889	6,061	13,746	7,558	16,649	3,705	47,719

The work done at the Thetford Mines laboratory consists exclusively in physical tests in connection with the quality and classification of the products of the asbestos industry.

The Montreal laboratory performed routine quantitative analyses and assays. The Quebec laboratories are by far the most important; besides having the usual facilities for making numerous ordinary assays and analyses of mineral substances and rocks, they are equipped to make spectrographic studies and accurate geochemical analyses of rocks and minerals, and to do research work in pyro- and hydro-metallurgy, and in ore dressing.

The equipment of our physics laboratory was completed during the past year. As it now stands it greatly adds to the efficiency of our laboratory work as a whole, by the addition of most modern instruments and apparatus and by the rapidity of the methods of analysis which are used to disclose the presence of very rare elements or extremely minute tenors.

The laboratory is equipped for emission or absorption spectrography. A large spectrograph of the Littrow type, with quartz prism, and automatic focussing device supplies a sufficient dispersion to disclose, and to accurately estimate all elements with persistent spectrum lines of photographic sensibility. By an extinction device of variable

angle, the same spectrograph may be used for absorption measurements in the ultra-violet zone. For the visible region and the infra-red, a microspectrophotometer, with a visual or a photographic comparator is used.

The excitation of arc and spark spectra usually needs several sources of electric currents, which require costly and bulky controls. In our physics laboratory all these controls are placed in a single case, of relatively small dimensions, constructed according to our specifications.

The development of the photographic plates is strictly controlled by constant temperature baths and automatic rocking to eliminate errors in handling, as such errors are liable to weaken the accuracy of densitometric measurements.

Two densitometers are in current use in our laboratory for various work: one may be used for the rapid measurement of photographic densities, whereas the other, more delicately constructed, is used also as a projection and a comparator. This latter apparatus is also equipped with an automatic device for reading the densities, and the lighting of the projection lamp is stabilized, within 0.02 per cent, by an electronic voltage regulator.

Toward the end of the year an X-Ray apparatus completed the equipment of the physics laboratory. With this spectrometer, specially designed, the reading of diffraction patterns is much simplified, for it is possible to automatically measure the Bragg angles and intensities of reflection by a Geiger-Muller cell moved tangentially to an arc of  $90^\circ$  by a synchronic motor and connected to amplifiers in stages and a recorder. Simultaneously, a photo-diagram of the diffraction pattern of the substance under observation may be obtained. The apparatus may be used for other observations: thus when the Geiger-Muller cell is insulated from the source of X-rays, and converted with a chronometer and a mechanical counter, it becomes an ordinary counter to measure radioactivity.

Among others, the following investigations were carried out in our Quebec laboratories during the period under review:-

P.E. Pelletier ... made 3,705 spectrographic determinations.

Henri Boileau .... made 12 complete analyses of waters, oils, rocks and minerals.

Jean Lavallée .... (1) examined 4,220 samples and specimens of rocks and minerals, which required 16,623 mineralogical operations; (2) he did research work on the comminution of native coarse gold, by a special process of crushing the ore.

Louis Bourgoïn ... carried on his researches on the beneficiation of our ilmenite ores, particularly those of the Baie St-Paul area.

B.J. Walsh ..... (1) made an experimental comparative study of the degree of accuracy of sampling by wet methods certain ores of sporadic gold, very unevenly distributed; (2) he studied the behaviour of the "Louvicourt Goldfield" ore in flotation and cyanidation.

Roger Potvin and Ch. E. Brunette .. worked on the development of a pyrometallurgical process for the extraction of alumina and potassa from certain silicates occurring in the Province.

## II.-Sampling and Ore Dressing Plant

This plant is situated near the town of Val d'Or in Abitibi-East county. G.S. Grant is the manager of the plant.

### Sampling.-

The following bulk samples of ores were received at the Ore Dressing plant:-

Shipped by	Metal in the Ore	Number of Bulk Samples	Weight (lb.)
Abenakis Mines, Ltd. ...	Gold	20	48,775
Alta Mines, Ltd. ....	Gold	11	18,970
Bonville Gold Mines, Ltd	Gold	14	3,243
Dubuisson .....	Gold	29	243
Fontana Mines (1945) ...	Gold	4	35,930
Freeport Exploration Co.	Gold	15	58,461
Kay Rand Mining & Development Co. ....	Gold	5	46,070
Pershing Manito Gold Mines, Ltd. ....	Gold	1	1,470
Vilbona .....	Gold	6	1,383
		105	214,545

In order to test the results of the dry sampling, the ore lots received from Freeport Exploration Company were treated in jigs and passed over a shaking table. The concentrates from the jigs, and of the table, as well as the tailings, were carefully sampled separately; the calculated results thus obtained came remarkably close to those of the dry sampling.

At the request of the mining engineers of Alta Mines and of Abenakis Mines, the results of the dry sampling of the ore lots were also tested by crushing the whole of each sample to a fineness leaving no residue on a ten mesh screen, and passing it over a blanket. The gold recovered on the blankets was weighed and the tailings from the blankets

were sampled and analysed carefully. The tenors thus obtained agreed very well indeed, in each case, with the results of the dry sampling.

Cyaniding Annex.-

A shipment of 17,734 pounds of tailings from the early operations of the mill of the Siscoe Gold Mines, was treated in the cyaniding plant. The object of this test was to determine whether, or not, it would be profitable to treat these tailings on a large scale.

Amalgamation Annex.-

A lot of 2,400 pounds of table concentrate from the Pershing Manitou Gold Mines was received at the plant, for the extraction of the gold by amalgamation. The recovery amounted 1.124 ounces.

III.-Lectures to Prospectors

As in past years the Department of Mines organized free courses of lectures, mainly on mineralogy and geology applied to the search for mineral deposits, intended for prospectors. These lectures were given by Alphonse Bleau, of the Department of Mines.

Lectures to Prospectors from April 1st, 1945  
to March 31st, 1946

County	Town or Village	Number of Lectures	Total Attendance
Trois-Rivières	Trois-Rivières	5	175
St-Maurice	Shawinigan	5	353
Hull	Hull	5	64
Témiscamingue	Ville-Marie	5	33
"	Béarn	5	22
Chicoutimi	Chicoutimi	5	24
Lac St-Jean	Dolbeau	5	10
Bonaventure	Matapédia	3	5
Matapédia	Amqui	5	59
Abitibi-West	La Reine	3	32
"	Taschereau	5	26

In connection with these lectures, the department distributed, free of charge, some 600 copies of the pamphlet "Notions élémentaires de minéralogie". Moreover, the Prospector's Handbook and collections of typical minerals and rocks were offered at nominal prices.

In order to help the men of the armed forces, awaiting demobilization and re-establishment, to choose a line of employment, the officers of the Educational staff, National Defence Department, invited the Quebec Department

of Mines to lend lecturers to lecture on the mining industry from the viewpoint of a career. B.T. Denis and Alphonse Bleau, of the Department of Mines, were lent for this purpose and they gave 32 lectures in the camps of Valcartier, St-Jean, Farnham, Sherbrooke, St-Jérôme, Longueuil, Delson, Huntingdon, Lacadie, St-Polycarpe.

#### IV.-Museum

There were no additions to the mineral collections on display in the show-cases of the departmental museum.

#### V.-Exhibition Displays

As part of the programme of re-establishment of men of the armed forces, an exhibit of minerals, ores, rocks and geological maps was displayed in the Educational Hut of the military camp at Valcartier until October 1945.

The Department also had displays at the Sherbrooke and Quebec exhibitions.

#### DIVISION OF PUBLICATIONS

The functions of this Division consist of editing and preparing for the printer all the manuscripts of the various reports issued by the department, correcting the proofs and generally supervising the printing of the reports. It also sees to the printing of all forms, letter-heads and printed stationery of all branches and divisions of the Department of Mines.

All the reports of the Department, technical and administrative, are issued in both French and English, and this division has charge of the translation of these publications from one language to the other, as well as of the periodical bulletins on the production of the Quebec Mining Industry.

In the fiscal year under review, the Division has seen to the printing of the following reports:-

The Mining Industry of the Province of Quebec in 1944

Geological Report No.20.-French version in press at the end of the year.

Geological Report No.24.-Tonnancourt-Holmes Area, by W.W. Longley.

Geological Report No.26.-Castagnier Area, by W.W. Longley.

Geological Report No.28.-Wetetnagami River Area, by H.W. Fairbairn.

Of the above publications the first and the second are printed, while Nos.24, 26 and 28 are reproduced by the "photo-litho" process.

The following preliminary reports (P.R.) were also published, P.R. No.191 by "photo-litho" and all the others by mimeograph.

- P.R. 190.-(parts I, II, and III) - Mining properties and development in Abitibi and Témiscamingue counties, 1944, by W.N. Ingham. Accompanied by 27 township maps showing extent of ground held by mining companies.
- P.R. 191.-Report of the Minister of Mines for the year ending March 31st, 1945.
- P.R. 192.-Taibi Lake Area, Abitibi East county, by René Béland.
- P.R. 193.-Lanaudière River Area, East Part of Duparquet township, Abitibi West county, by R. Bruce Graham.
- P.R. 194.-Belleterre Map-Area (Sheet No.1), Guillet township, Témiscamingue county, by P.E. Auger.

All these reports have been issued in French and in English.

André Champagne was acting as chief of the Division during the whole year, with the following as collaborators: Walter Delorey, R. Lesage, G. Lechevalier and R. Brown. R.P.D. Graham edited the English manuscripts and corrected their proofs. Of the above, André Champagne and Walter Delorey are on the permanent staff of the Division.

#### CIVIL ENGINEERING WORKS BRANCH

L.A. Saint-Pierre, Civil Engineer, chief of this Branch, reports as follows on the work carried out in 1945-46:

##### Construction of Mine Roads

During the fiscal year ending March 31st, 1946, the length of new mine roads constructed in the Province was 37.58 miles, bringing to a total of 1,080.68 miles the length of mine roads constructed by the Department. In addition 9.16 miles of roads has been improved or completed. A further 49.42 miles has been maintained or repaired. Moreover, a winter road 15 miles in length, in Desboues and Ligneris townships, was constructed as far as Authier lake.

The total cost of the work done by this division during the year was \$661,979.38 which brings the total costs of the construction of mine roads of the Province to date to \$6,385,531.07.

The sum of \$661,979.38 expended during the year in review was met as follows : payable by the Province, \$640,000.00 and by contributions of the companies \$21,979.38.

The Department of Mines also paid a sum of \$30,313.21 for the maintenance of several summer roads, and \$10,334.22 towards facilitating transportation in mining regions during the winter months.

Construction of New Mine Roads

<u>Townships and Counties</u>	<u>Road</u>	<u>Length in Miles</u>
Pershing, Abitibi- East county .....	Road to Croinor Pershing Mines, Ltd. ....	6.00
Letellier, county of Saguenay .....	Road from Seven Islands to lac des Rapides .....	2.34
Beauchastel, Rouyn- Noranda county .....	Road to Elder Gold Mines, Ltd.	1.00
Potton, Brome county.	Road to Baker Mining and Milling Co's property .....	1.50
Bourlamaque, Abitibi- East county .....	Road of the Louvicourt Gold- fields, Ltd. ....	3.62
Roberval county .....	Road to Chibougamau .....	15.00
Bourlamaque, Abitibi- East county .....	Road to East Sullivan Gold Mines, Ltd. ....	2.22
Bourlamaque, Abitibi- East county .....	Road of the Bourlamaque Gold Mines, Ltd. ....	1.70
Guillet, Témiscamin- gue county .....	Road from Guillet lake to Belleterre village .....	1.00
Joannès, Rouyn- Noranda county .....	Road of Hosco Gold Mines, Ltd.	0.47
Privat, Abitibi- East county .....	Road of Trojan Gold Mines, Ltd. ....	1.00
Beauchastel, Rouyn- Noranda county .....	Road of East Amqui Gold Mines, Ltd. ....	1.00
Thetford, Mégantic county .....	Road to the Flintkote Mines, Ltd. ....	0.28
Beauchastel, Rouyn- Noranda county .....	Road to the Wasa Lake Gold Mines, Ltd. ....	0.55

Improvement or completion of the following road were also paid from this item.

<u>Township and County</u>	<u>Road</u>	<u>Length in Miles</u>
Bousquet, La Pause and Preissac, Abitibi-East County ..	Road from St-Maurice mine to Cadillac village .....	8.00
St-Urbain, Charlevoix county .....	Road to the Furnace mine ...	1.16

Drainage of Peat Bogs and their Exploitation

The Department of Mines also drained certain peat bog areas, as a help towards their exploitation. During the year under review the following work was carried out:-

<u>Locality</u>	<u>Operator of Bog</u>	<u>Length in Trenches</u>
Rivière-du-Loup ..	Trump Peat Moss Corporation	15,000 feet
Ile-aux-Coudres ..	Excel Peat, Limited .....	10,625 "
St-Ulric de Matane	Louis and Roméo Roy .....	7,735 "

Mining Villages

The renewal of interest and activities in the mining industry, which followed the end of the war, contributed to the development of mining towns and villages during the fiscal year 1945-46. There is a great shortage of housing in Bourlamaque, Val d'Or, Cadillac, Malartic, Rouyn and Noranda.

The town of Malartic is expanding normally. During the fiscal year new subdivisions of building lots were approved and 136 lots were put up for sale. Of this number, 87 were purchased, and from these sales an amount of \$20,690.25 was credited to the Municipal Funds of the town of Malartic. From this amount the Department of Mines refunded \$11,253.54 for municipal works executed during the year, and \$3,043.41 was put into the Consolidated Fund of the Province as dues from the lots of the new subdivisions.

The town of Cadillac continues to progress. During the fiscal year, 49 building lots were sold which brought in a sum of \$4,860.47 into the municipal fund. The sum of \$1,394.58 was paid into the Consolidated Fund of the province, as dues from the sale of lots.

The town of Rouyn had a particularly active year. The municipal works, of roads, water distribution and sewers extend continually. During the fiscal period under review the Department of Mines has paid to the municipality a sum of \$1,637.66 from the municipal fund for work on public utilities in the subdivision of Rouyn-Sud. During the year, 50 building lots were sold in that subdivision, and from the proceeds of these sales a sum \$3,557.07 was added to the municipal fund, and a sum of \$1,208.73 was paid to the Quebec Government.



The town of Belleterre is also progressing normally. During the fiscal year, 26 new building lots were sold and \$4,543.37 therefrom was added to the credit of this municipal fund of the town.

There is nothing of note to report regarding the village of Bousquet.

The future of the village of Pascalis, which was destroyed by fire on July 7th, 1944, depends on the expansion of the Cournor, and other neighbouring mines.

In October 1945, G.O. Aubry, C.E., did some preliminary work in the Chibougamau region for the purpose of choosing a favourable site for a "future" village. This work will be taken up again and completed in the spring of 1947.

Two other projects are also being considered: the establishment of mining villages in the townships of Louvencourt and Pershing, respectively.

#### LIBRARY

Charles Dufault, Librarian of the Department, reports that a total of 216 books, bound technical reviews, and various government, society and company reports concerning various phases of mining and allied industries were added to the library during the fiscal year 1945-46, bringing the total number of volumes on the shelves to 7,739. These publications were acquired in part by purchase and the balance by way of exchanges with other governments and various technical institutions throughout the world. Most of the volumes deal with mining, metallurgy, geology, mineralogy, chemistry, and related subjects.

The library also received, by subscription, 87 scientific and industrial periodicals treating with various aspects of mining and related industries.

The library is used for the most part by members of the Department's staff, but others have frequent occasion to refer to the vast store of information which has been accumulated and which, by means of an up-to-date index, is readily obtainable. The increasing number of people making use of the library's facilities is taxing its space and also more room is required for the additional shelves that must be obtained. The situation would be alleviated, temporarily at least, if other quarters were found for members of other branches of the Department's staff who, because of lack of office space now occupy parts of the library.

To assist in the administration of the library, there is a Library Committee, of which Dr. Jones is chairman, composed of representatives of various divisions of the Department.

### EQUIPMENT SECTION

Arthur Boucher, Custodian of Equipment, reports to Dr. Jones that, during the fiscal year 1945-46, instruments and camping equipment were furnished to 23 geological and engineering parties.

When the different parties return from their respective regions of work, each item is carefully examined and most of any repairs and adjustments that might be needed, whether it be of instruments or camping equipment, are effected by the personnel of the Equipment Section. The material is then kept in a store-room where there are facilities to properly arrange the various items in places ready of access.

Under the custodian of equipment are also kept the extensive departmental collection of photographs and lantern slides. These photographs and slides are filed and indexed so that they may be available for call at any time.

During the year, 400 photographs, mostly taken by various members of the Department's technical staff in the course of their duties, were added to the collection, which now totals 8,200 photographs.

### SCHOLARSHIPS

In order to encourage the development of our mineral resources, the Department of Mines of the Province awards scholarships each year, to meritorious students who are taking university courses leading to an engineering degree in geology, or mining or metallurgy. These scholarships are granted by the Minister of Mines, on the recommendation of a committee appointed by him each year.

In 1945, this Scholarship Committee consisted of: A.O. Dufresne, Deputy Minister of Mines, Chairman; Adrien Pouliot, Dean of the Science Faculty of Université Laval; Armand Circé, Director of Ecole Polytechnique of Université de Montréal; J.U. MacEwan, professor of Metallurgy at McGill University; J.W. Laverdière, Director of the Department of Geological Sciences of Université Laval; T.C. Denis, of the Quebec Department of Mines and G. Landreville, secretary of the Committee.

The scholarships are awarded by giving first consideration to applicants holders of an engineering degree, who intend to take post-graduate courses leading to higher university degrees, with one of the following sciences as major subject: mining engineering; metallurgy; ore dressing; geophysics; geology. Then, as second choice, come undergraduates who have satisfied to all the conditions to enter the final year of the ordinary courses in those subjects; and lastly, to students in attendance to a university, by order of merit and of college class.

For the university year 1945-46, twenty scholarships were awarded, distributed as follows:-

Graduates proceeding to higher degrees	4
Undergraduates entering senior year	7
Undergraduates entering other years	9

The four graduates holders of university degrees successfully passed all examinations and tests in the spring of 1946. Mr. René Béland was conferred the degree of Doctor in Philosophy (Geology) of the University of Toronto. Mr. Arthur Dubé obtained with great success his degree of Master in Science (Metallurgy) at the Carnegie Institute of Technology, Pittsburgh, Pa. His work brought upon him the attention of the authorities of this institution, who awarded him a scholarship of \$1,500 for the academic year 1946-47, in addition to all his expenses connected with his laboratory work during the summer of 1946, to enable him to continue his researches. The other graduates successfully completed their second year at the University of Toronto, where they are working towards a Doctor's degree in Geology.

It is also worth mentioning that Mr. Jean Duprat, one of our ex-bursars, has obtained a scholarship from the "Office des Recherches Scientifiques", of the provincial Department of Trade and Commerce, in view of completing his work towards a Doctor's degree in Metallurgy.

The honours paid Mr. Arthur Dubé and Mr. Jean Duprat reflect credit on our Province, and more particularly on the Department of Mines, which is responsible for the selection of able candidates.

Of the seven undergraduates who entered the final year, three obtained their Bachelor's degree in Mining Engineering and three in Metallurgy. As to the seventh, before the degree of Bachelor in Applied Sciences may be awarded him, he will have to take a supplementary examination in one subject.

As to the nine students who entered other years, six passed all the examinations for promotion into the next higher class. Two others are to take supplementary examinations before being promoted. The last one, owing to illness, could attend only for seven of the ten days of examinations, and he will have to take over again the subjects which he missed through illness.

The Committee wishes to express to the Honourable the Minister of Mines, its appreciation of the encouragement given to the formation of mining engineers, geologists and metallurgists in the Province of Quebec, and to assure him of the gratitude of young men holding scholarships from the Department of Mines.

I have the honour to be, Sir,

Your obedient servant,

A.O. DUFRESNE,  
Deputy Minister of Mines.

Quebec, September 1946.