

C Stack

The **RIO TINTO** mining company



of **CANADA** limited

ANNUAL REPORT 1956

PURVIS HALL
LIBRARIES
JUN 8th 1957
McGILL UNIVERSITY

C
stack

100-100
file

*The Rio Tinto Mining Company
of Canada Limited*



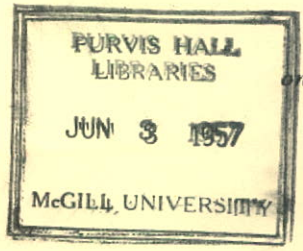
Address of the President

Mr. J. N. V. DUNCAN

at the Annual Meeting

of Shareholders

on April 30th, 1957



Pres. - Prof. Kierans - May 21 57

You will all have received a copy of the Company's Annual Report for 1956, and I hope will have read the reports and Financial Statements that it contains with interest. The President's Report covers the activities of your company during 1956 and I do not propose now to go over the same ground. I think that perhaps it may be more interesting to you if I try to bring the picture a little more up to date and to say something of the possibilities that exist for your Company's activities in the future. It has been your Company's main preoccupation to bring into efficient production both Pronto and Algom and to maintain the schedule of development and construction work at Northspan and Milliken.

The additional construction work at Pronto, which it was decided to undertake, in order to increase the capacity to 1,500 tons per day is now completed and it is hoped that this rate of production will be reached early in May. So far in the four months of this year, over 140,000 tons of ore have been treated. The new facilities should enable us to record a monthly output of 45,000 tons from which we can expect increased operating surpluses of the order of \$450,000 per month during the balance of 1957. You will notice I use the term "operating surpluses" and not "operating profit" as I feel it is quite misleading to talk of profits at a period when a Company still has to retire \$5.2 millions of Bonds.

The Algom operations started according to schedule, but we did have some unforeseen mechanical troubles in the concentrator plant which delayed achievement of full production. These troubles have now been overcome and both Quirke and Nordic are up to their scheduled production of 3,000 tons per day. So far this year we have processed some 530,000 tons of ore of which 190,000 tons were milled in the month of April, and it is confidently expected that the latter rate will be maintained and exceeded. It is to be expected that operating costs would be high during the shakedown period, but the latest figures show that Algom costs are running at about \$9.50 per ton. There is every hope that these costs will be reduced now that the plants have settled down to scheduled capacity. Again I would point out that Algom has debts to the order of \$50 million to retire before we can talk of profits.

At the three properties of Northspan, shaft sinking and mine development have progressed well during the winter months and we expect that barring any unforeseen delays Northspan properties

will be in full production on the scheduled dates which are July for Lake Nordic, August for Spanish American and October for Panel.

Shaft sinking and the construction programme at Milliken are well advanced and an intensive effort is planned for the summer which should bring the Milliken property to production as anticipated in March, 1958.

Another important aspect of our activities in Blind River is the provision of housing for staff at the mines and we hope that Elliot Lake Townsite will prove to be an outstanding mining community. Our programme of construction in 1957 covers 500 houses in addition to the 160 already started and this figure may be increased if sufficient serviced lots are available. This question is being given top priority and it is our wish to provide, as soon as possible, for all those who work at our Blind River mines healthy and comfortable accommodation for themselves and their families. Meetings have recently been held with other mining companies in the area and with representatives of the community to discuss possible methods of financing a hospital at Elliot Lake which is an urgent need. At present the nearest small hospital is over 40 miles away.

Future of Uranium

As shareholders of the Rio Tinto Company you have probably been following closely the various official and unofficial announcements that have been made about uranium. The Chairman of Rio Tinto, London, in his Report last year outlined the position of this metal for commercial purposes. Since then the importance of uranium as a fuel for power needs in the future has become increasingly apparent. This has recently been underlined by the United States Government's decision to continue stockpiling their domestic production until 1966. As you are aware, practically the entire production of Canadian uranium up to 1966 is under option to the United States but these options do not have to be declared until 1961. We hope that this decision by the United States to stockpile domestic ore is an indication that the Canadian producers will shortly be put on the same footing by the exercise of the options. Obviously it would be greatly to Canada's advantage to have this decision at an early date so that the uranium mining

industry here would know to what extent it has to turn to the export market for its future. Your Company is studying very closely all the future markets for uranium and will in every way keep close to this situation. Western Germany is starting an extensive Atomic Power programme. The highly industrial areas of Western Europe especially those of the Ruhr, and Saar, have shown the increasing need for new means of power. Since the Suez crisis the acuteness of this situation has been brought home very vividly. Germany's future requirements of uranium would seem to be considerable and indicate a further market for Canadian uranium. France and Italy have also started atomic power programmes. Japan has stated that with her densely populated areas she too must turn to atomic power in the near future. However, these markets are not going to wait for us and we must realize there are other producers in the world including the United States who will be seeking markets. Rio Tinto has a long history of commercial trading with many of these countries and we certainly intend taking every advantage of this friendly relationship to further the sales of our uranium output.

It is very pleasing for Rio Tinto to see that an agreement has been reached between Canada and the United Kingdom for supplies of uranium and we hope this is the beginning of an expanding market. It may be of interest to you to know that the Mary Kathleen Mine, which is controlled by the Rio Tinto Mining Company of Australia, has a direct contract to supply uranium to the United Kingdom and in this case there is no bogey of 1962 or 1963.

I think there is little doubt that Canada, having the greatest known uranium ore reserves in the world, will play a very important role in the atomic age which we are about to enter. Certainly, uranium will play an increasingly important part in Canada's economy. It is expected that next year Canadian uranium production will be greater in value than nickel production; indeed, it may well exceed the combined production value of copper, lead and zinc.

Exploration and Future Activities

Dr. Derry in his report on exploration has covered quite fully the work done in 1956 and plans for 1957 which will cover a wide field throughout the country from British Columbia to Northern

Quebec. Extensive work is being planned on a concession in the Ungava Nickel belt in which your Company has acquired a substantial interest. I consider this exploration branch of our work to be of major importance as it is the spearhead of the development of your Company in the years ahead.

While the uranium properties have been our main preoccupation, work on other projects has not been overlooked. In particular, very considerable effort has been put into our studies of the Oceanic Iron Ore Company prospect in Ungava and plans have been made for continuous exploration and development work on the property this summer. At the same time, discussions have been continued regarding the other aspects of the operation which, in view of the complexity of the problems involved, may still take some little time to settle. Every effort, however, is being made to come to a decision as to the economic possibilities of this property at an early date.

In my report I referred to the interest your Company had acquired in exploration work being carried out by the Rio Tinto Group in the Central African Federation and in South Africa. One prospect now being examined is the Empress Nickel claims in Southern Rhodesia. A substantial orebody has been indicated by diamond drilling and further drilling is being done to test the extension of the orebody. We shall know more about the prospects of this later on this summer.

Whilst we believe that Rio Tinto, Canada's, main activities should be primarily directed towards the development of the natural resources of Canada, we also feel you will want us to take advantage of suitable overseas investments and the fact that your Company has been able to acquire interests of this kind in other parts of the Commonwealth indicates the values of its association with an internationally known mining group.

It only remains for me to thank again all members of the staff for their untiring efforts over the past year.



Pres. - Prof. Kierans - May 31 '57



The Annual Meeting of The Rio Tinto Mining Company of Canada Limited will be held on Tuesday, April 30th, 1957, at 2.30 p.m., Toronto time, in the Blue Room at the King Edward Hotel, King Street East, Toronto, Canada.

DIRECTORS

JOSEPH H. HIRSHHORN, *Chairman of the Board*
J. N. V. DUNCAN, O.B.E., *President*
R. W. WRIGHT, *Managing Director*
W. B. MALONE, *Vice-President and Treasurer*
W. H. BOUCK, Q.C., *Vice-President*
DR. D. R. DERRY, *Vice-President*
DR. E. B. GILLANDERS, *Vice-President*
H. BLAISE
SAM HARRIS
THE HONOURABLE SALTER A. HAYDEN, Q.C.
B. R. P. MACKENZIE, Q.C.
LEO MODEL
SIR MARK TURNER

SECRETARY

D. G. C. MENZEL

* * *

G. BAKER, *Assistant Secretary*
C. J. SERVAIS, *Assistant Secretary*
G. R. DEVEY, *Assistant Treasurer*

BANKERS

THE CANADIAN BANK OF COMMERCE, *25 King Street West, Toronto*

SOLICITORS

FASKEN, ROBERTSON, AITCHISON, PICKUP & CALVIN,
36 Toronto Street, Toronto

AUDITORS

COOPER BROTHERS & CO.,
Chartered Accountants, 80 King Street West, Toronto

TRANSFER AGENTS

THE TORONTO GENERAL TRUSTS CORPORATION,
Toronto, Montreal, Winnipeg and Vancouver

THE CORPORATION TRUST COMPANY
Jersey City, New Jersey, U.S.A.

OFFICES

335 Bay Street, Toronto

THE RIO TINTO MINING COMPANY OF CANADA LIMITED

REPORT OF THE DIRECTORS

TO THE SHAREHOLDERS:

The directors of your Company take great pleasure in presenting herewith the first formal Annual Report of your Company.

This report includes:

(a) a report of the President of your Company which will be read with great interest by shareholders as it contains a general outline of your Company's operations during the last year;

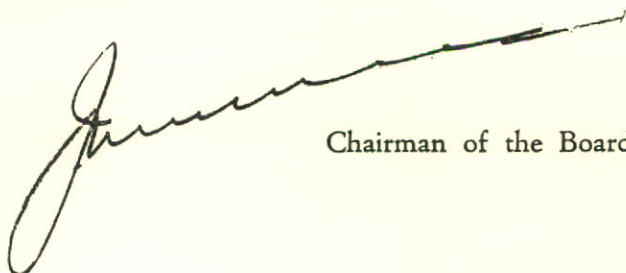
(b) a report by Dr. Duncan R. Derry, the Vice-President of your Company in charge of exploration, on the extensive exploration programme carried out during the year 1956;

(c) short descriptive notes concerning Algom Uranium Mines Limited, Pronto Uranium Mines Limited, Northspan Uranium Mines Limited and Milliken Lake Uranium Mines Limited. Your directors are particularly proud of the accomplishments of these companies which, as you know, are managed by Rio Tinto Management Services Limited, the management subsidiary of your Company; and

(d) the financial statements required by law to be given to shareholders.

Any further comment would repeat what will appear on the following pages of this report. Your directors, however, wish to take this opportunity of extending to the staff of the Company and of the several companies managed by Rio Tinto Management Services Limited, their most sincere thanks for their loyal and efficient services.

Submitted on behalf of the Board,



Chairman of the Board.

THE RIO TINTO MINING COMPANY OF CANADA LIMITED

PRESIDENT'S REPORT TO THE SHAREHOLDERS

As this is the first Annual Report of your Company, I feel that it is appropriate to start by giving an account of the events leading up to the formation of your Company, and of its association with The Rio Tinto Company, Limited, of London, England, of which Company I have the honour to be the Managing Director.

Rio Tinto of London began its activities in Canada some four years ago. Your Company was formed in 1955, under the name of Rio Tinto (Canada) Limited, as its wholly owned subsidiary, and immediately acquired a substantial interest in Algom Uranium Mines Limited, which was thereafter managed by a management subsidiary, Rio Tinto Management Services Limited.

At the end of 1955, discussions took place with Mr. J. H. Hirshhorn with a view to the consolidation of his extensive mining interests with those of your Company. These discussions culminated, in May, 1956, in the merging of these interests in your Company, which was renamed The Rio Tinto Mining Company of Canada Limited. Rio Tinto of London retained a 40% interest in your Company and voting control. The greater part of the remainder of the share capital, and somewhat less than half of the debentures of your Company, were issued to Mr. Hirshhorn against the transfer of his interests to your Company, but a certain number of shares and the greater part of the Debentures were sold to the public to provide your Company with increased cash resources.

Mr. Hirshhorn was appointed Chairman of the Company and I was appointed President. The other Directors who were elected have brought to the Company a wide knowledge of mining, law and finance, and the wisdom of their choice has, I think, been amply justified by the contribution which they have made to the affairs of your Company since its incorporation.

Since the end of last year, Rio Tinto of London has acquired from Mr. Hirshhorn an additional shareholding in your Company, with the result that it now has voting and beneficial control of your Company.

The strength which your Company derives from its association with Rio Tinto of London is, I think, of great value to it, since, as I will elaborate later in my report, it gives opportunities of investment in other parts of the world, as well as providing the technical and financial support which is so essential to an active mining company.

Blind River Area

Our main mining activities during 1956 were in the Blind River area, where the uranium properties held by the operating companies in which your Company has a substantial interest represent the most important underlying assets of your Company. During the year their development has been a first call on management and resources. Pronto, Algom, Northspan and Milliken will have together a scheduled capacity of 19,600 tons of ore a day, which represents some 60% of the forecast capacity of the Blind River area, and these companies between them hold contracts to deliver uranium concentrates to Eldorado Mining and Refining Limited to a total value of \$614,800,000. The total cost of the mines and plants of these companies will be some \$150,000,000.

Pronto, which was in production at the beginning of 1956, although still then experiencing some teething troubles which continued during the early part of that year, mined a total of 406,000

tons during the year. At the end of the year work was in hand to increase the capacity to 1,500 tons per day.

The Algom Quirke property of Algom came into production in October, 1956, in the remarkably short time of twenty months after the mine was financed. The breakdown of the agitator mechanism in the leaching tanks caused trouble in the early stages of operation but the mill is now operating at its scheduled capacity. The Nordic mine and mill of Algom have come into production since the end of 1956.

The merging of Lake Nordic Uranium Mines Limited, Panel Consolidated Uranium Mines Limited and Spanish American Mines Limited under the name of Northspan Uranium Mines Limited took place in June, 1956. In November \$70,000,000 was provided by bank loan arrangements totalling \$25,000,000 and by a debenture issue of \$45,000,000. At the same time provision was made for a further \$8,000,000 if required, in the form of \$2,000,000 under a bank loan arrangement and \$6,000,000 to be provided by your Company.

Finance to put the property of Milliken Lake Uranium Mines Limited into production was raised in March of this year.

Further details of the activities and progress made by these Companies will be found in the later pages of this Annual Report and in the Annual Reports of the Companies themselves.

The Blind River mines under Rio Tinto management will have some 3,000 employees. With the co-operation of the Ontario Government an intensive house building programme is proceeding under mortgage finance arrangement with Central Mortgage and Housing Corporation and it is hoped that over 600 houses will be built by the end of 1957, a number sufficient for about half of the expected number of married employees. A further substantial housing programme will be undertaken in 1958. Elliot Lake is in an attractive natural setting and it is the intention of both the Provincial Government and the companies concerned that it should be an outstanding mining community.

That so much progress was made in Blind River during the year was due to the great efforts of the staffs of the operating companies and your Board would like to take this opportunity to express their appreciation of this and to thank especially Dr. Gillanders, Vice-President in charge of mining operations, Mr. Hutchison, Managing Director of Northspan and Mr. Nelems, Managing Director of Pronto and Milliken. Your Board would also like to thank the Province of Ontario Authorities for the assistance and co-operation received from them.

Subsidiaries and managed companies

The properties of a number of subsidiary and managed companies were examined or studies of them continued during the year. The properties of Anglo-Rouyn Mines Limited and Pater Uranium Mines Limited have both been shown to contain copper ore of commercial grade but in neither case has sufficient ore been so far proved to justify development.

A study of the technical aspects of the iron property of Oceanic Iron Ore of Canada Limited at Ungava Bay was undertaken by a group of Engineering Consultants whose work was co-ordinated by Dr. A. T. Griffis.

The mine of Rix-Athabasca Uranium Mines Limited, which is under our management although our investment is rather small, continued to operate satisfactorily during the year. Additional ore reserves have been proved and the mine's position in this respect thereby improved.

A number of subsidiary or managed companies have investment assets but no properties, and it is contemplated that some of your Company's holdings in these companies will be either amalgamated or disposed of in cases where it appears that no purpose helpful to the main lines of your Company's development would be served by their individual retention.

Exploration Interests

A substantial exploration programme was carried out during the year, in part in association with other groups, by Rio Canadian Exploration Ltd. under the direction of Dr. Derry. A number of interesting properties and areas were examined both on the ground and using airborne methods, and the study of the more promising of these continues. Your Board attach great importance to this side of our activities, which is referred to in more detail later in this report.

During the year your Company has acquired interests which range from approximately 25% to 40% in exploration being carried out by Rio Tinto of London in the Rhodesian Federation. Your Company's share of the cost of these programmes is currently being lent by a wholly owned subsidiary of Rio Tinto of London and it is not expected that your Company will be called upon to make a financial contribution to these programmes until 1958. The right has also been obtained to participate to the extent of approximately 15% in the examination and, if proved economic, exploitation of the Palabora carbonatite copper deposit in the Transvaal, South Africa. The latter is now being examined by Rio Tinto in association with the Newmont Mining Corporation who are providing the initial exploration funds. Technical and management control of this venture is in the hands of Rio Tinto. Dr. Derry has recently visited Rhodesia and South Africa to see these programmes.

Finance

The capital raised by your Company, Algom, Pronto, Northspan and, since the end of the year, Milliken, will bring the total funded debt of these companies in Canada to approximately \$160,000,000. It is interesting to note that of this amount about 37½ percent was raised in Canada, 37½ percent in the United Kingdom and the Continent, and 25 percent in the United States. The capital raised outside Canada, while contributing materially to the development of the Blind River field, did not materially affect the equity interest of your Company and the Canadian public in the mines concerned.

Interest rates rose progressively during the year involving a 5 percent coupon for your Company's debentures, a 5¾ percent coupon for the Northspan debentures and, latterly, a 6 percent coupon for the Milliken debentures. Furthermore, the restrictions on lendings imposed by the Bank of Canada on the Canadian chartered banks during the second half of the year contributed to the proportion of capital raised under the auspices of your Company outside Canada.

Your Company has come a long way since it was incorporated. It is certainly a record of which everyone concerned is very proud. Any success achieved is due to the splendid team work which has been displayed at all levels and without which it would never have been possible to have done any of the things which I have reported to you above. I would like to pay a special tribute to the Managing Director of your Company, Mr. R. W. Wright, to whom has fallen the heavy burden of co-ordinating and directing the many developments which have taken place during the past year. He has been most ably supported by his team of Vice-Presidents to whom I also wish to pay the warmest tribute. It has been a source of the very greatest inspiration to me as your President to have had such a fine team to work with.



President.

THE RIO TINTO MINING COMPANY OF CANADA LIMITED

REPORT ON EXPLORATION

During 1956 exploration by your company was carried out through Rio Canadian Exploration Ltd., the main exploration agent of your company, and through Technical Mine Consultants Limited which became a subsidiary of your company on May 1st, 1956. Certain programmes of exploration were carried on in conjunction with other companies and persons.

Field offices were maintained in Noranda, Quebec; Bathurst, New Brunswick; and Vancouver, British Columbia.

Quebec

In the Noranda area a programme of geological and geophysical surveys, followed by diamond drilling, was carried out in conjunction with two other companies on properties held by Rio Canadian. This work has so far failed to indicate any deposits additional to the sulphide body, containing low values in copper and zinc, discovered in 1955 by Rio Canadian using geophysical methods. In the Chibougamau area work was carried out on some of the claims held by Rio Canadian and other properties were examined.

New Brunswick

In New Brunswick surveys and examinations were carried out on a number of properties in the active area lying west and southwest of Bathurst.

British Columbia

In British Columbia Rio Canadian in partnership with an American group had prospecting teams in several areas including the Purcell Range, Fraser River, Babine Lake and the Alaska Highway. In some cases the prospecting was followed by diamond drilling. The work resulted in no major discoveries, but several groups of claims were staked on the basis of showings at present too small for commercial development.

Ontario

In Ontario Technical Mine Consultants carried out a geological and geophysical survey of five townships east of Lake Superior under an agreement with The Algoma Central and Hudson Bay Railway Company, the owner of the mineral rights. Some mineralized zones will be further tested during 1957. Rio Canadian examined a number of properties and conducted drilling on two properties held under option in the Sault Ste. Marie area. These options were subsequently dropped.

Airborne Surveys

In addition to ground exploration Rio Canadian, in conjunction with other companies, carried out airborne surveys in search of base metal ore bodies by means of an Otter aircraft equipped with specially developed electro-magnetic apparatus owned and operated by Gresham Exploration Limited, an associated company. The airborne surveys were commenced in the latter part of 1956, first in Noranda area and later in New Brunswick. Ground follow-ups of the indications by geological and geophysical parties will be continued in 1957 and surveys of new areas undertaken.

Staff

Mention should be made of our able staff of Geologists, Mining Engineers, Geophysicists, Chemists and Prospectors and in particular of Mr. J. A. Sadler, the Exploration Manager of Rio Canadian.

ASSOCIATED COMPANIES

Development work was also carried out under the direction of your Company on the properties of companies in which your Company has a substantial share interest.

Anglo-Rouyn Mines Limited

An underground programme of development on the copper deposit held by Anglo-Rouyn Mines Limited in the Lac La Ronge area of Saskatchewan was carried out in the first eight months of 1956. This programme was followed by surface diamond drilling which is still in progress. It is hoped that sufficient additional ore will be proved to justify an economic operation.

Pater Uranium Mines Limited

The property of Pater Uranium Mines Limited, which is located a short distance east of the Blind River area in Ontario, contains a low grade copper deposit, with some cobalt values, previously indicated by diamond drilling. Shaft sinking was commenced in 1956 and lateral work was continued in 1957 with the object of finding whether the grade and width of the ore improves below the depth tested by surface diamond drill holes.

Oceanic Iron Ore of Canada Limited

Oceanic Iron Ore (Quebec) Limited, a wholly-owned subsidiary of Oceanic Iron Ore of Canada Limited, holds development licences covering extensive deposits of magnetic concentrating iron ore on the west side of Ungava Bay. A comprehensive programme was carried out during the summer of 1956 including diamond drilling, bulk sampling and test work on concentration and pelletizing. In addition detailed surveys by independent consultants were carried out in connection with open pit mining plans, treatment plant, harbour, power plant, and townsite. The information is being assembled and a study made of the economic possibilities of production on a large scale.

Frederick Mining & Development Limited

In Saskatchewan nickel-copper indications on a property held by Frederick Mining & Development Limited were reviewed prior to planning a new programme in an attempt to extend the known area of mineralization.

British Columbia Explorers (1953) Ltd.

Technical Mine Consultants carried out assessment and exploration work on several groups of claims owned by British Columbia Explorers (1953) Ltd. in the Highland Valley and elsewhere in British Columbia.



Vice-President.

THE RIO TINTO MINING COMPANY OF CANADA LIMITED

Pronto Uranium Mines Limited

Rio Tinto Canada's Direct and Indirect Beneficial Interest 20%
(on basis that all outstanding warrants are exercised)

URANIUM SALES CONTRACT \$55,000,000

(for delivery prior to April 1, 1962)

MILL CAPACITY 1,250 tons per day

H. E. NELEMS - - - - - *Managing Director*

R. CARL ASHENHURST - - - - - *Secretary-Treasurer*

P. YOUNG - - - - - *Mine Manager*

Pronto was the first uranium mine to go into production in the Blind River Area. From the end of 1955, when it started, to the end of 1956 there were certain initial difficulties, many due to the plant being the forerunner in uranium production. Most of these have now been overcome. A steady improvement has been made and the milling rate has been gradually increased from 1,000 tons per day to an average rate of 1,266 tons per day. The increased tonnage coupled with an improvement in the grade of ore milled resulted in a large increase in operating profits towards the end of 1956. The recovery of U_3O_8 averaged 1.8 lbs. per ton with a maximum of 2.1 lbs. per ton. The known ore reserves on December 31, 1956 were 3,142,556 tons averaging 2.68 lbs. of U_3O_8 per ton.

The rate of development work was stepped up at the end of the year in preparation for the increase of production to 1,500 tons per day scheduled to start in April, 1957. This meant an increased amount of work underground and a total of 8,808 feet of development work was completed in 1956.

In order to help the housing shortage, 20 three-bedroom houses were started in the Pronto West Subdivision at the end of 1956. These houses, it is hoped, will be completed in the spring of 1957 for occupation by Pronto employees.

THE RIO TINTO MINING COMPANY OF CANADA LIMITED

Algom Uranium Mines Limited

Rio Tinto Canada's Direct and Indirect Beneficial Interest 41%
(on basis that all outstanding warrants are exercised)

URANIUM SALES CONTRACT \$207,000,000
(for delivery prior to April 1, 1962)

MILL CAPACITY: QUIRKE 3,000 tons per day
NORDIC 3,000 tons per day

E. B. GILLANDERS - - - - - *Managing Director*
D. A. MACFARLANE - - - - - *Secretary-Treasurer*
R. C. HART - - - - - *Mine Manager*
M. W. AIRTH - - - - - *Superintendent, Nordic*
M. A. UPHAM - - - - - *Superintendent, Quirke*

During the past year the Company has completed the surface plant at each of the Company's Quirke and Nordic properties and a total of 19,116 feet of development was done at the Quirke mine and 16,992 feet at the Nordic mine. Since the official opening on February 16, 1957, the milling plants have attained their rated capacity of 3,000 tons per day and attention is now being focussed on improving operating efficiency.

At the end of 1956, ore reserves which include only ore proven or fully developed by underground workings and ore indicated by drill holes with a maximum spacing of one thousand feet amount to 31,201,510 tons, having an average diluted grade of 2.43 lb. U₃O₈ per ton. These reserves include the main horizon only and are located in an area approximately one-quarter of what is believed to be the total potential productive area of the Quirke and Nordic ore bodies, and which are fairly well defined by known ore on adjoining properties. There are ample ore reserves to meet the present contract and to continue in production for many years to come.

Further research in metallurgy has been carried on by the Company in 1956. A method of recovery of thorium has been proven by an agency working for the Company and the processes involved are now being patented so as to be available should it be decided to recover this metal from the ores mined.

A wholly-owned subsidiary was formed, Elliott Lake Building Corporation Limited, which contracted to erect 150 houses for sale to employees of the Company. Seventeen of these were occupied by the end of 1956 and it is hoped to complete the remainder this year. This project for a well planned community should make Elliot Lake a model mining town.



NORTHSPAN — LAKE NORDIC



PRONTO

Key to Locations

OPERATING PROPERTIES

- 1. Blind River Area
- 2. Preston East Dome
- 3. Rix Athabasca

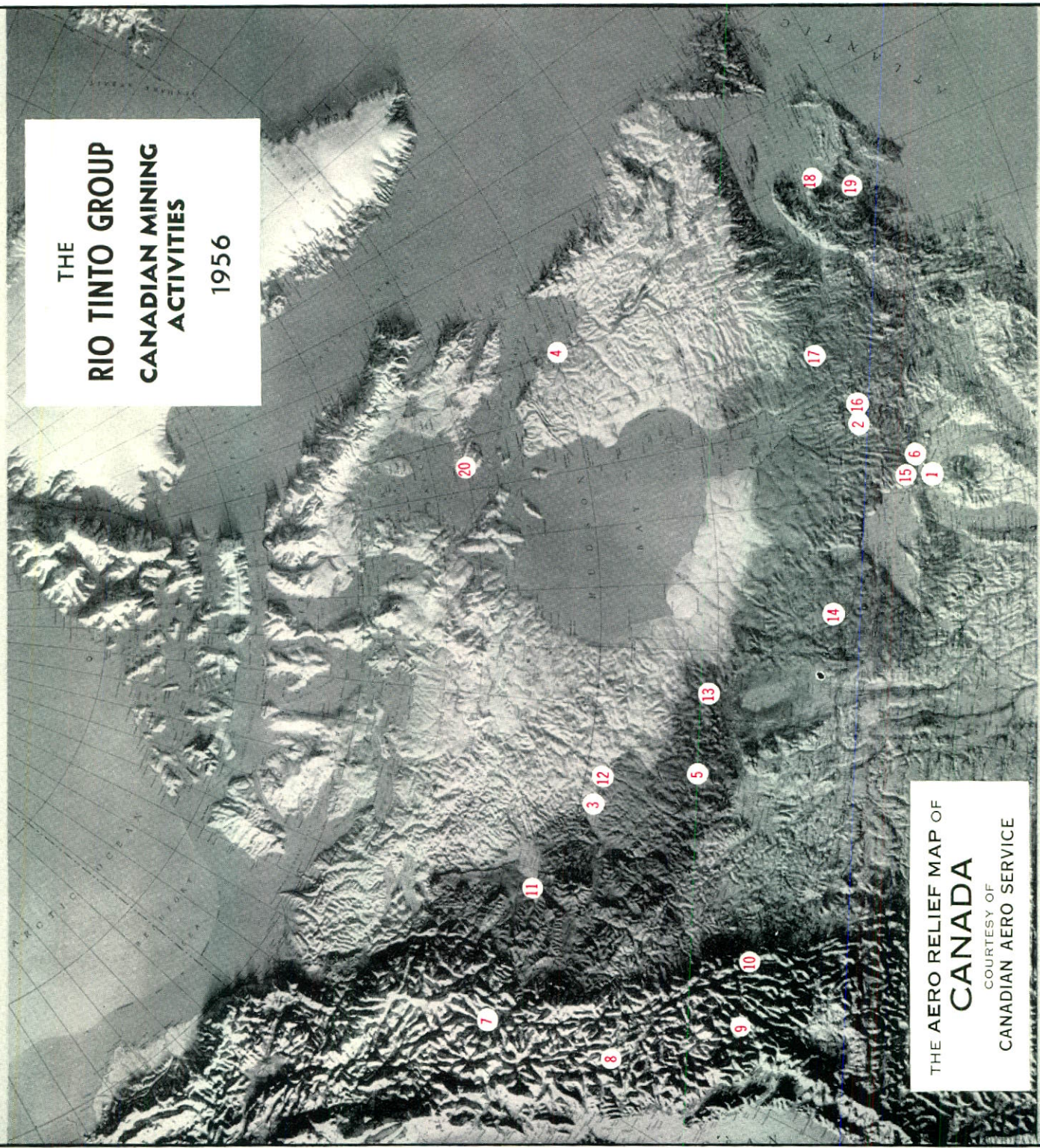
PROPERTIES UNDER DEVELOPMENT

- 4. Oceanic Iron Ore
- 5. Anglo-Rouyn
- 6. Pater

AREAS OF MAIN EXPLORATION ACTIVITIES

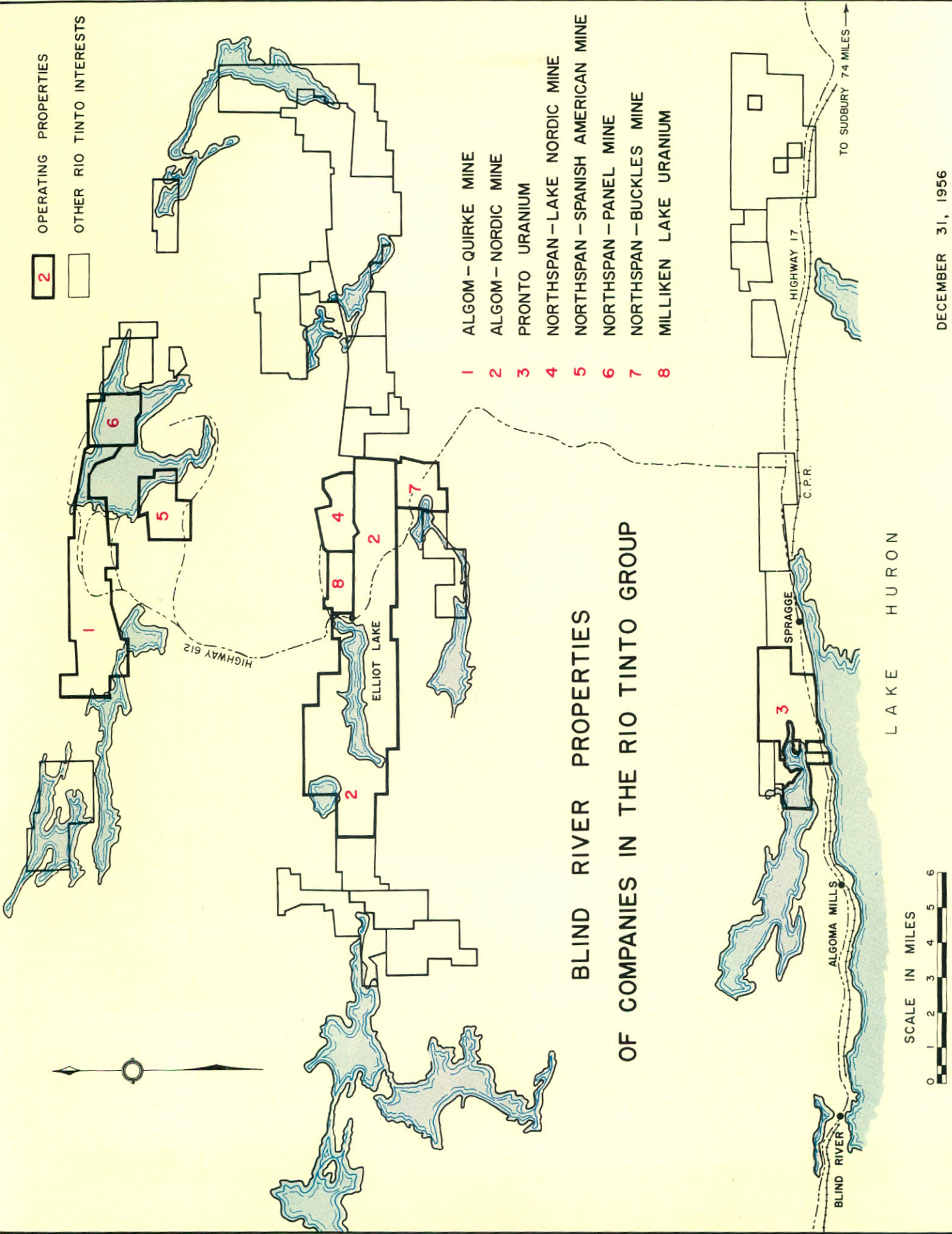
- 7. Alaska Highway
- 8. Babine Lake
- 9. Highland Valley
- 10. Purcell Range
- 11. Great Slave Lake
- 12. Axis Lake
- 13. Wintering Lake
- 14. Sioux Lookout
- 15. Algoma
- 16. Noranda
- 17. Chibougamau
- 18. Bathurst
- 19. Hampstead
- 20. Baffin Island

THE RIO TINTO GROUP CANADIAN MINING ACTIVITIES 1956



THE AERO RELIEF MAP OF
CANADA
COURTESY OF
CANADIAN AERO SERVICE

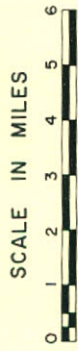
2 OPERATING PROPERTIES
 OTHER RIO TINTO INTERESTS



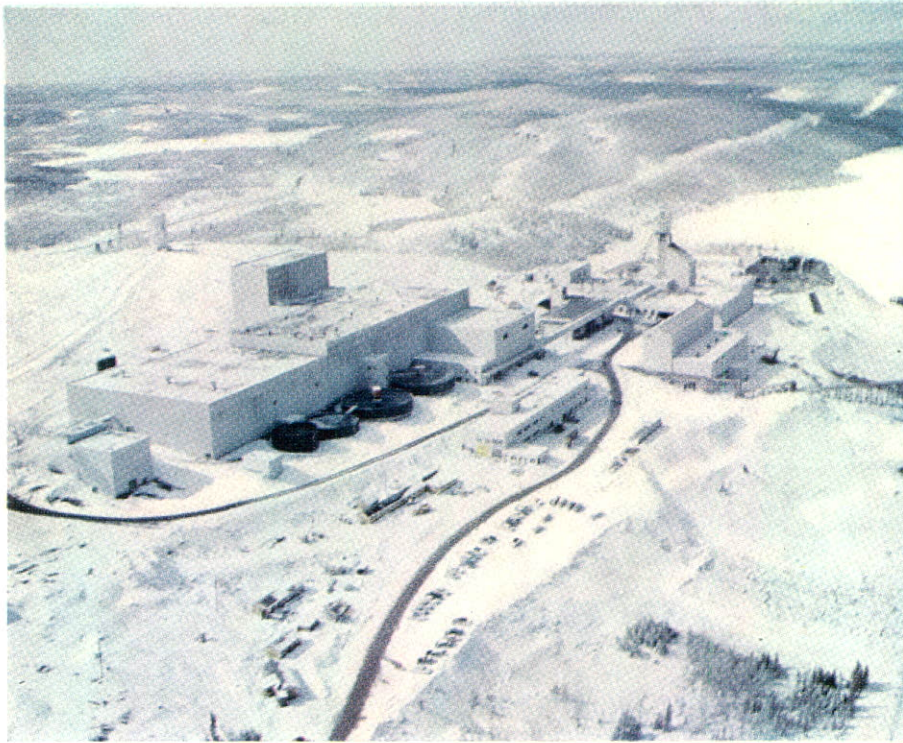
- 1 ALGOM - QUIRKE MINE
- 2 ALGOM - NORDIC MINE
- 3 PRONTO URANIUM
- 4 NORTHSPAN - LAKE NORDIC MINE
- 5 NORTHSPAN - SPANISH AMERICAN MINE
- 6 NORTHSPAN - PANEL MINE
- 7 NORTHSPAN - BUCKLES MINE
- 8 MILLIKEN LAKE URANIUM

BLIND RIVER PROPERTIES
 OF COMPANIES IN THE RIO TINTO GROUP

LAKE HURON



TO SUDBURY 74 MILES →



ALGOM — NORDIC



ALGOM — QUIRKE

THE RIO TINTO MINING COMPANY OF CANADA LIMITED

Northspan Uranium Mines Limited

Rio Tinto Canada's Direct and Indirect Beneficial Interest 36%
(on basis that all outstanding warrants are exercised)

URANIUM SALES CONTRACT \$275,000,000
(for delivery prior to March 31, 1963)

SCHEDULED MILL CAPACITY: LAKE NORDIC 4,000 tons per day
SPANISH 2,000 tons per day
PANEL 3,000 tons per day

W. A. HUTCHISON - - - - - *Managing Director*

G. A. ROY - - - - - *Secretary-Treasurer*

Mine Managers

E. C. KEELEY - - - - - *Lake Nordic*

G. M. GODFREY - - - - - *Spanish*

D. G. ROWE - - - - - *Panel*

The Company was formed on June 29, 1956, by the amalgamation of three predecessor companies known as Lake Nordic Uranium Mines Limited, Spanish American Mines Limited and Panel Consolidated Uranium Mines Limited.

Financing for the Company was carried out in November 1956 by the sale of \$45,000,000 (U.S.) through an underwriting group headed by Morgan Stanley and Model, Roland & Stone of New York. Bank loans of \$27,000,000 were authorized—\$16,000,000 (U.S.) from the Chase Manhattan Bank and \$11,000,000 from the Canadian Bank of Commerce. A further \$6,000,000 of General Mortgage Bonds, Series B, may be issued pursuant to the Bank Loan Agreement and the Series B Bond Purchase Agreement. The funds so raised are considered to be sufficient to meet the capital requirements to bring the properties into production.

Since the inception of operations on the respective properties in the early part of 1956, over two miles of shaft sinking has been completed on the three properties. In addition, construction of three large mining and milling plants, having a total production capacity of 9,000 tons per day, has been in progress.

Besides plant construction, bunk houses and services were completed to accommodate upwards of 2,500 construction employees with 51 dwellings to house staff personnel. By the end of December 1956, a total of 2,221 men were employed on the Northspan projects.

At the close of the year the construction program was proceeding satisfactorily with a large percentage of plant site preparation and building foundations having been completed. At the date of this report, erection of major buildings had reached an advanced stage and barring any unforeseen delays, Lake Nordic will be in production by July 1957, Spanish American by August 1957, and Panel by October 1957.

THE RIO TINTO MINING COMPANY OF CANADA LIMITED

Milliken Lake Uranium Mines Limited

Rio Tinto Canada's Direct and Indirect Beneficial Interest 22%

URANIUM SALES CONTRACT..... \$94,000,000
(for deliveries prior to April 1, 1963)

SCHEDULED MILL CAPACITY..... 3,000 tons per day

H. E. NELEMS - - - - - *Managing Director*

R. CARL ASHENHURST - - - - - *Secretary-Treasurer*

The Company has been engaged in exploring and developing its mining claims in the Blind River Area of Ontario. During 1956 progress was made in the underground development of the property and in the preparation of plans for the erection of a mill. Work was temporarily suspended in the latter half of the year pending completion of financing arrangements.

Subsequently, by the date of this report, financing has been carried out by a bank loan of \$10,000,000 from Barclay's Bank Limited, of London, England. A further \$16,000,000 has been raised by an underwriting group headed by Nesbitt, Thomson and Company Limited.

It is intended to sink two shafts to a depth of 3,000 and 3,500 feet respectively. These shafts will then be connected by a crosscut on the 3,000 foot level. Trackless mining will be employed throughout. The work has been so laid out that production can commence on the basis of 1,000 tons per day within three months of the production shaft reaching its ultimate depth and be expanded over a further period of four months to the designed capacity of not less than 3,000 tons per day.

The design and plans for the mill are drawn up based on the Quirke Lake Mill of Algom Uranium Mines Limited. The sites for the various sections of the plant have been located and work is progressing on the establishment of the camp for the housing of construction personnel. Barring any unforeseen delay, initial production is scheduled to start by about April 1, 1958.

THE RIO TINTO MINING COMPANY OF CANADA LIMITED

AUDITORS' REPORT

To the Shareholders:

The Rio Tinto Mining Company of Canada Limited,

We have examined the consolidated balance sheet of The Rio Tinto Mining Company of Canada Limited and its consolidated subsidiary companies as at December 31, 1956 and the consolidated statements of profit and loss and deficit for the year ended on that date. Our examination included a general review of the accounting procedures of those companies of which we are auditors and such tests of their accounting records and other supporting evidence as we considered necessary in the circumstances. We have reviewed and accepted the financial statements as at December 31, 1956 for certain of the consolidated subsidiary companies as reported upon by their auditor.

In our opinion, the accompanying consolidated balance sheet and consolidated statements of profit and loss and deficit, when read in conjunction with the notes appended thereto, present fairly the financial position of the company and its consolidated subsidiaries as at December 31, 1956 and the results of their operations for the year ended on that date.

COOPER BROTHERS & CO.,

Chartered Accountants.

March 12, 1957,

Toronto, Ontario, Canada.

THE RIO TINTO MINING
(Incorporated under
AND ITS CONSOLIDATED

CONSOLIDATED BALANCE
(Expressed in

ASSETS

CURRENT ASSETS:

Cash		\$ 6,387,925	
Accounts receivable and advances —			
Subsidiary company not consolidated	\$ 2,200		
Affiliated company	23,950		
Associated companies	160,330		
Other	94,745	281,225	\$ 6,669,150

INVESTMENTS — at cost:

Quoted investments —			
Bonds and debentures —			
Associated company	5,290,512		
Other	94,031	5,384,543	
Shares, shares in voting trust certificate form, and warrants to purchase shares —			
Subsidiary company not consolidated	2,971,546		
Associated companies	28,367,616		
Other	5,307,152	36,646,314	
(Quoted market value of investments, transfer of which is not restricted — \$48,081,053)			42,030,857
Shares, and warrant to purchase shares, transfer of which is restricted —			
Associated companies	4,230,912		
Other	187,255	4,418,167	
Unquoted investments —		46,449,024	
Shares —			
Associated companies	3,019		
Other	119,173	122,192	46,571,216

**FIXED ASSETS, OTHER ASSETS AND DEFERRED
EXPENDITURE — at cost:**

Mining claims		10,951	
Fixed assets (after deducting accumulated depreciation of \$23,741)		163,627	
Leasehold improvements less amount written off		135,225	
Loans and advances — Associated companies		550,000	
Mortgages receivable — Employees		29,825	
Exploration and development expense (Note 2)		1,155,303	
Organization and financing expense		410,601	
Interest on 5% debentures (Note 3)		494,650	
Discount on 5% debentures (Note 3)		210,000	3,160,182
			<u>\$56,400,548</u>

COMPANY OF CANADA LIMITED

(the laws of Ontario)

SUBSIDIARY COMPANIES

SHEET AS AT DECEMBER 31, 1956

(Canadian dollars)

LIABILITIES

CURRENT LIABILITIES:

Bank indebtedness	\$	344,695	
Accounts payable and accrued liabilities		254,575	
Due to —			
Parent company		2,032	
Affiliated company		139,603	
Associated companies		59,794	
Director		62,692	
Interest accrued on 5% debentures		123,500	\$ 986,891

LONG TERM DEBT (Note 4)

5% debentures due May 1, 1963 —			
Authorized and issued		15,000,000	
Redeemed to date on exercise of share purchase warrants		216,000	14,784,000

MINORITY INTEREST IN CONSOLIDATED NET ASSETS 362,852

SHAREHOLDERS' EQUITY:

Capital Stock —			
Authorized by supplementary letters patent dated April 24, 1956 (Note 5) —			
400,000 class A shares with a par value of \$100 each		\$40,000,000	
40,000,000 common shares without par value			
Issued and fully paid (Notes 6 and 7) —			
187,000 class A shares		\$18,700,000	
23,747,310 common shares		21,760,479	
		40,460,479	
Deficit		193,674	40,266,805

Approved on behalf of the Board,

W. B. MALONE, Director.

W. H. BOUCK, Director.

The accompanying notes constitute an integral part of this statement and should be read in conjunction therewith.

\$56,400,548

THE RIO TINTO MINING COMPANY OF CANADA LIMITED

AND ITS CONSOLIDATED SUBSIDIARY COMPANIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 1956

1. Principles of Consolidation

The consolidated statements include the accounts of all subsidiary companies more than 51% owned and all intercompany balances and transactions of such companies have been eliminated. Accordingly one subsidiary in which the company's interest is more than 50% but less than 51% is not consolidated but is shown as an investment in these financial statements. This subsidiary company has had no profits or losses, all net expenditures having been charged to Deferred Development and Administration.

The difference between the cost of shares in these subsidiaries and the book values of their net assets at the time of acquisition has been allocated in the consolidation to the assets of subsidiaries to which they relate.

2. Exploration and Development Expenditure

Exploration and development expenditure is being carried forward in suspense pending the development of mines, and will then be treated as part of the cost of investment in such mines up to an amount not exceeding the then estimated market value of the investments.

3. Interest and Discount on 5% Debentures

Interest and discount on the 5% debentures are being carried forward as deferred expenses until certain companies, in which the company has a substantial investment, pay dividends. Such interest and discount will be charged to expense as such dividends are received.

4. Sinking Fund Requirements

The 5% debentures are redeemable on and after May 1, 1959, at prices reducing from 103% of par to par. Sinking fund requirements provide for the retirement of a maximum of \$3,000,000 principal amount by the end of 1959; \$6,000,000 by the end of 1960; \$9,000,000 by the end of 1961 and \$12,000,000 by the end of 1962.

5. Supplementary Letters Patent

By supplementary letters patent dated April 9, 1956, the company's name, Rio Tinto (Canada) Limited, was changed to The Rio Tinto Mining Company of Canada Limited.

By supplementary letters patent dated April 24, 1956, the company's share capital was redivided, reclassified and increased as follows:

- (i) The 880,000 issued shares and the 120,000 unissued shares with a par value of \$5 each as at December 31, 1955, were redivided and reclassified into 44,000 Class A shares and 6,000 Class A shares respectively, with a par value of \$100 each, and
- (ii) The authorized share capital was increased by the creation of 350,000 additional Class A shares with a par value of \$100 each and 40,000,000 common shares without par value.

6. Capital Stock

The changes during the year in the issued and outstanding share capital were as follows:

Class A shares

44,000 shares (equivalent of 880,000 former shares as at December 31, 1955, with a par value of \$5 each, redivided and reclassified during the year)	\$ 4,400,000
143,000 shares issued during the year, together with 23,500,000 common shares and \$8,000,000 principal amount of debentures, all in consideration for \$5,000,000 cash, surrender of unsecured indebtedness of \$3,859,779, shares of Rio Northern Mines Limited valued by the directors at \$945,890 and other investments valued by the directors at \$34,000,000	14,300,000
<hr/>	
187,000 shares as at December 31, 1956	<hr/> \$18,700,000 <hr/>

Common shares

23,500,000 shares issued during the year as part consideration for assets referred to under Class A shares	\$21,505,669
247,310 shares issued during the year on exercise of share purchase warrants and options for cash of \$38,810 and for the redemption of \$216,000 principal amount of 5% debentures	254,810
<hr/>	
23,747,310 shares as at December 31, 1956	<hr/> \$21,760,479 <hr/>

1,267,690 unissued common shares are reserved against the exercise of share purchase warrants outstanding relating to the 5% debentures entitling the holders thereof to purchase 100 common shares for each \$1,000 principal amount of debentures at \$1 per share up to and including May 1, 1959 and at \$2 per share up to and including May 1, 1962.

1,500,000 unissued common shares are required for the exercise of share purchase warrants, issued to Tinto Holdings Limited, having the same terms and conditions as the warrants attached to the 5% debentures.

170,000 unissued common shares are reserved against the exercise of options on 185,000 shares granted to executive officers and directors at \$1.50 per share up to and including June 4, 1961, under which 15,000 shares were taken up in 1956.

7. Restriction of Dividends

No dividends, other than stock dividends, may be paid prior to May 1, 1959. Thereafter until November 1, 1962, dividends, other than stock dividends, are restricted by the trust indenture relating to the 5% debentures to an amount not greater than one half of the excess of dividends received from investments over sinking fund requirements.

8. Further Investments

The company has agreed to purchase on demand a maximum of \$6,000,000 principal amount of General Mortgage Bonds, Series B, of Northspan Uranium Mines Limited at par, having share purchase warrants attached.

9. Financial years of Subsidiaries

The financial years of certain subsidiaries end on dates other than December 31, but in all cases accounts have been prepared as at December 31, and audited as of that date for consolidation purposes.

THE RIO TINTO MINING COMPANY OF CANADA LIMITED
AND ITS CONSOLIDATED SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENT OF PROFIT AND LOSS

FOR THE YEAR ENDED DECEMBER 31, 1956

(Expressed in Canadian dollars)

REVENUE:

Investment income	\$ 405,863	
Management fees	513,359	\$ 919,222

EXPENDITURE:

Loan interest	\$ 80,303	
Provision for depreciation of fixed assets and amortization of leasehold improvements	53,886	
Administrative and general expenses	837,369	\$ 971,558
Reduction of prior year's income taxes on application of loss for current year		52,336
		3,300
Loss on operations for the year		49,036
Loss on investments sold or written off (Net)		111,770
		160,806
Minority interest in profit of consolidated subsidiaries		13,536
		174,342
LOSS FOR THE YEAR		\$ 174,342

CONSOLIDATED STATEMENT OF DEFICIT

FOR THE YEAR ENDED DECEMBER 31, 1956

(Expressed in Canadian dollars)

BALANCE — DECEMBER 31, 1955	\$ 19,332	
Loss for the year	174,342	
BALANCE — DECEMBER 31, 1956	\$ 193,674	

THE RIO TINTO MINING COMPANY OF CANADA LIMITED
AND ITS CONSOLIDATED SUBSIDIARY COMPANIES

QUOTED INVESTMENTS AS AT DECEMBER 31, 1956

(Expressed in Canadian Dollars)

BONDS AND DEBENTURES:

	Total holdings	Holdings, transfer of which is not restricted (Note 2)	Holdings, transfer of which is not restricted	Quoted market value of holdings, transfer of which is not restricted (Note 1)
	Principal amount	Principal amount	Principal amount	
Algom Uranium Mines Limited —				
5% General mortgage debentures due 1961	\$5,305,000		\$5,305,000	\$ 4,960,175
Rio-Prado Consolidated Oils Limited —				
5½% Convertible sinking fund bonds due 1964	100,000		100,000	95,000

\$ 5,055,175

SHARES, SHARES SUBJECT TO A VOTING TRUST AGREEMENT, AND WARRANTS:

	Number of shares	Number of shares	Number of shares
Algom Uranium Mines Limited (Note 3) —			
Shares	199,705		199,705
Shares subject to a voting trust agreement	700,000		700,000
Warrants entitling holders to subscribe for shares at \$11 each	700,000	500,000	
Anglo-Rouyn Mines Limited	2,257,270		2,257,270
Brunswick Mining and Smelting Corporation Limited	175,000		175,000
Consolidated Howey Gold Mines Limited	369,000		369,000
Deer Horn Mines Limited	987,000	370,000	
Milliken Lake Uranium Mines Limited	565,695	100,000	
Northspan Uranium Mines Limited —			
Shares	2,382,577	666,212	1,716,365
Warrant entitling holder to subscribe for shares at \$3 each	120,000		120,000
Oceanic Iron Ore of Canada Limited	1,165,020	1,165,000	20
Pater Uranium Mines Limited	820,016	634,991	
Peach Uranium & Metal Mining Limited	76,731		185,025
Preston East Dome Mines, Limited	372,789		76,731
Pronto Uranium Mines Limited (Note 3)	325,825		372,789
Holdings with neither cost nor market value of more than \$500,000 for each "total holding"			325,825

NOTES:

- The market values shown above, which are given in compliance with the requirements of The Corporations Act, 1953, are based upon closing market prices at December 31, 1956. Because of the number of shares involved, the market value is not necessarily indicative of the amount that could be realized if the investments were sold.
- The transfer of these holdings is restricted by pooling and/or escrow arrangements except in the case of a warrant for 500,000 shares of Algom Uranium Mines Limited which is restricted as to transfer by terms under which the warrant is issued.
 - Net cash proceeds of any sale of investments in Algom Uranium Mines Limited and Pronto Uranium Mines Limited must be devoted to the purchase for redemption of the company's 5% debentures.

\$43,025,878

\$48,081,053

PRINCIPAL OVERSEAS ASSOCIATES

UNITED KINGDOM

THE RIO TINTO COMPANY, LIMITED
RIO TINTO FINANCE AND EXPLORATION LIMITED
THE PYRITES COMPANY LIMITED
Barrington House, Love Lane, London, E.C.2

FEDERATION OF RHODESIA AND NYASALAND

THE RIO TINTO MINING COMPANY OF CENTRAL AFRICA LIMITED
RIO TINTO (NORTHERN RHODESIA) LIMITED
RIO TINTO (SOUTHERN RHODESIA) LIMITED
MINERAL SEARCH OF AFRICA (PRIVATE) LIMITED
802 Tanganyika House, Union Avenue and Third Street, Salisbury, S. Rhodesia

UNION OF SOUTH AFRICA

THE RIO TINTO MINING COMPANY OF SOUTH AFRICA LIMITED
MINERAL SEARCH OF AFRICA (PRIVATE) LTD.
Atlantis House, Corner Market and Fraser Streets, Johannesburg

COMMONWEALTH OF AUSTRALIA

THE RIO TINTO MINING COMPANY OF AUSTRALIA PTY. LIMITED
RIO AUSTRALIAN EXPLORATION PTY. LIMITED
20 Queens Road, Melbourne, S.C.2

UNITED STATES OF AMERICA

THE PYRITES COMPANY INC.
P.O. Box 1188, Wilmington (99), Delaware

SPAIN

COMPANIA ESPANOLA DE MINAS DE RIO TINTO, S.A.
Alcala 95, Madrid

