# **Rio Algom Limited**









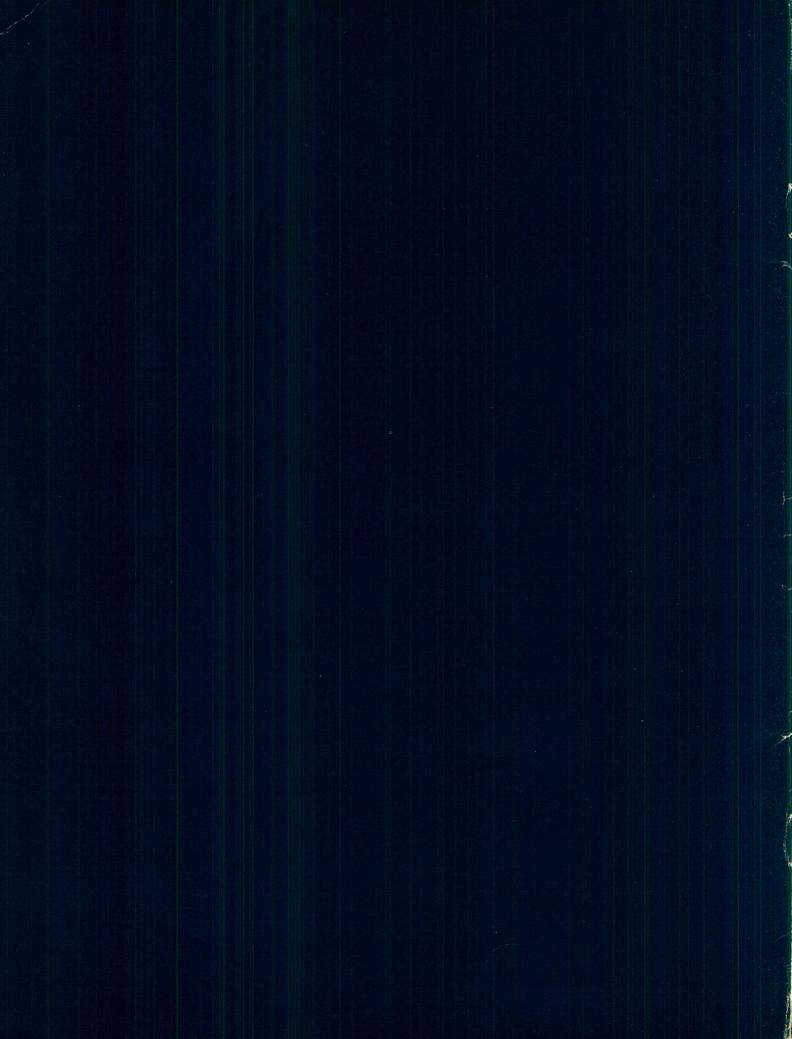












### Highlights of 1979 Consolidated Operations

(in thousands except where noted by asterisk)	1979	1978
Sales	\$710,729	\$576,055
Net earnings	\$ 75,761	\$ 61,817
Per share of common stock*	\$ 5.57	\$ 4.53
Dividends paid on common stock	\$ 20,276	\$ 17,429
Per share of common stock*	\$ 1.50	\$ 1.29
Working capital, year end	\$228,869	\$232,822
Ratio of current assets to current liabilities*	2.5 to 1	3.1 to 1
Common shareholders' equity	\$437,427	\$382,189
Total common shares outstanding at December 31	13,517	13,511
Equity per share of common stock outstanding*	\$ 32.36	\$ 28.29
Production		
Uranium oxide (pounds)	5,454	6,028
Copper in concentrate (pounds)	134,194	135,422
Steel (tons)	193	208
Number of employees at December 31 *	6,878	6,658

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Cover: Faces from Rio Algom's operations which include production and marketing of uranium oxide, copper and molybdenum concentrates; stainless and specialty steels, as well as metals distribution. An Annual and General Meeting of Shareholders of Rio Algom Limited will be held on Wednesday, April 30, 1980 at 10:00 a.m. (Toronto time) in the Ontario Room, Royal York Hotel, 100 Front Street West, Toronto, Ontario, Canada.

**Annual Meeting** 

### **Directors' Report** to the Shareholders

Revenue and earnings increased by approximately 23% in 1979 and were the highest in Rio Algom's history. The greater part of these increases is attributable to the operating results at the copper-molybdenum mine of Lornex Mining Corporation Ltd., 68.1% owned by Rio Algom. The initial phases of the expansion of Rio Algom's uranium mining facilities at Elliot Lake were completed ahead of schedule and below budget and work was begun on the Lornex expansion program which is scheduled for completion in 1981.

The amalgamation of Rio Algom Limited and its affiliated corporation, Preston Mines Limited, was approved by the shareholders of each corporation on January 30, 1980 and became effective on that day. The continuing corporation is called Rio Algom Limited.

#### **Financial Position**

Consolidated revenue was \$710.7 million compared to \$576.1 million in 1978. Consolidated net earnings were \$75.8 million (\$5.57 per common share) in 1979 compared to \$61.8 million (\$4.53 per common share) in the previous year. Dividends on common stock of \$20.3 million (\$1.50 per share) were paid in 1979 compared to \$17.4 million (\$1.29 per share) last year.

Earnings before deductions for income and mining taxes and for the interests of minority shareholders in the net earnings of Lornex increased from \$105.1 million in 1978 to \$178.7 million in the current year. Compared to the previous year, the 1979 pre-tax earnings of Lornex were substantially higher, those from steel manufacturing and metals distribution were slightly reduced and those from uranium operations were significantly lower.

Income and mining taxes of \$84.6 million were charged against earnings in 1979 compared to \$38.7 million in the previous year. The increase is attributable to a combination of higher pre-tax earnings and a substantial increase in the effective tax rate caused primarily by a change in the proportions of earnings among operations taxed at different rates.

The accounts of Rio Algom's two United States subsidiaries have not been consolidated with those of the Corporation after January 1, 1979 because of certain legal proceedings which are referred to in the note to the consolidated financial statements on accounting policies. Accordingly, the consolidated revenue and consolidated net earnings for 1979 are not fully comparable with those of 1978 in that the 1978 figures include revenue of \$39.6 million and net earnings of \$5.5 million attributable to the United States operations. In contrast, 1979 sales of \$44.7 million and net earnings of \$3.5 million, attributable to the U.S. operations, have been excluded from the consolidated financial statements.

Cash and short term deposits at December 31, 1979 as shown in the consolidated statement of financial position were \$83.8 million compared to \$94.5 million at the end of 1978. The cash position of Lornex, which is consolidated with that of Rio Algom in the Corporation's financial statements, represented \$77.3 million and \$7.9 million of the above consolidated figures at December 31, 1979 and December 31, 1978, respectively. The major factors contributing to the reduction in cash directly available to Rio Algom were (i) increased investment in inventories of uranium in concentrates, largely due to the repudiation by the Tennessee Valley Authority of its contract for the purchase of uranium oxide, and in inventories of steel as a result of higher prices and support required for increased sales volumes; (ii) lower earnings of operations other than Lornex; and (iii) continuing high capital expenditures, primarily at Elliot Lake.

Capital expenditures were \$86.1 million in 1979 compared to \$86.3 million in 1978. Of the 1979 total \$61.2 million related to the Elliot Lake program for the expansion of the Quirke and Panel mines and mills which is virtually complete except for the housing program which will carry over into 1980. Expenditures on the expansion program, which was initiated in 1975, to the end of 1979 were \$239.5 million and the estimated final cost is \$256 million compared to the total budgeted capital cost of \$280 million. This amount excludes expenditures on the development and rehabilitation of the closed down Stanleigh uranium mine and mill at Elliot Lake which were incurred by Preston Mines Limited prior to its amalgamation with Rio Algom on January 30, 1980.

#### Amalgamation of Rio Algom Limited and Preston Mines Limited

The amalgamation of Rio Algom and Preston resulted in a combination of the assets and liabilities of the two corporations and the issuance by the continuing corporation of additional common shares and second preference shares as more fully described in note 12 to the consolidated financial statements. The results of operations will be reported on the amalgamated basis commencing January 1, 1980 in accordance with generally accepted accounting principles.

Operational and administrative efficiencies and substantial income and mining tax benefits are expected as a result of the amalgamation.

Comprehensive information regarding the affairs of the two corporations and the amalgamation was contained in the material sent to the shareholders of each corporation in connection with the general meetings held on January 30, 1980. A copy of this material will be provided upon request.

For your information the Annual Report of Preston for 1979 is forwarded to you with this Report.

#### **Uranium Operations**

Revenue from production of uranium oxide in 1979 from Rio Algom's mines at Elliot Lake was \$157.2 million compared to total uranium revenues of \$153.1 million in the previous year. The average net price of \$28.82 per pound for 1979 production compares with \$25.39 for the previous year.

Increased operating costs include the effect for the full year of costs of the expanded Quirke operation which commenced production in April 1978 and the initial operating costs of the newly developed Panel mine and mill that began commercial production in November 1979. Primarily because of these increased costs, operating earnings from these mines declined to \$43.3 million from \$57.0 million from all uranium mines in 1978.

Production of uranium oxide in Canada was 5.5 million pounds compared to 5.0 million pounds in 1978. The average grade of uranium ore mined was consistent with the long term Quirke mining plan and was slightly lower than in 1978; the effect on production was offset by an increase in the rate of recovery. The grade of ore mined at Panel and the recovery rate during the initial operating period are regarded as satisfactory; both are expected to improve during 1980.

#### **Copper Operations**

Net earnings of \$57.6 million from the Lornex coppermolybdenum mine in 1979 were about four times those of the previous year despite an increase of \$56.8 million in charges made to earnings to provide for income and mining taxes. The 68.1% portion of Lornex's earnings attributable to Rio Algom's ownership amounted to \$39.2 million which represents an increase of \$29.4 million over the previous year. Lornex paid ordinary and extra dividends totalling \$2.00 per share on its common stock in 1979; the dividends received by Rio Algom from Lornex amounted to \$11.3 million.

The average daily milling rate at Lornex increased slightly in 1979. The mill head grades were lower for copper but the molybdenum grades were higher; these normal variations together with the increased milling rate resulted in maintenance of copper production and an increase in molybdenum production over the previous year.

Lornex's revenue from mine production was higher in 1979 because of a sharp increase in molybdenum prices, higher copper prices, both including higher foreign exchange gains. Revenue from molybdenum also increased because of more favorable terms under new sales contracts replacing a contract that expired in midyear.

Lornex completed repayment of its bank loans in July 1979 and by year end had accumulated a substantial cash reserve. It is expected that the expansion of the mine and mill at an estimated cost of \$160 million will be financed from general funds of the Corporation supplemented by temporary bank borrowings if necessary.

#### **Steel Operations**

Sales of stainless and specialty steel manufactured at the Welland and Tracy plants and of metal purchased

from others for resale increased from \$334.9 million in 1978 to \$363.0 million in 1979. Operating earnings were \$31.7 million compared to \$32.8 million in the previous year. The increase in sales and the relatively stable earnings were achieved despite the adverse effects of a nine-month strike at the Tracy plant which commenced in late March. A new contract with production and maintenance workers has been ratified and start-up of the plant began in January, 1980.

The losses sustained at the Tracy plant were largely offset by increases in the earnings of the Welland plant of Atlas Steels and of the metal service centre operations of Atlas Alloys. The tonnage of steel produced at the Welland plant increased and the average selling price was moderately higher. Earnings from the Welland plant were also improved by operation of the new melt shop for the full year at the high level of efficiency that was attained in the latter part of 1978.

The Atlas Alloys metal service centres operated effectively in a competitive market place. Sales increased and costs continued to be stringently controlled. The operating earnings of each of the service centre units in this group were higher than in the previous year.

#### Exploration

The scale of Rio Algom's exploration for minerals was increased sharply in 1979 by the commencement of a program to expand the search for new mining properties initiated following an assessment of the exploration function carried out during 1978.

Expenditures on exploration in 1979 were \$9.1 million compared to \$6 million in the previous year; further increases are planned for 1980. In addition to the continuing search for new properties by Rio Algom's exploration group and sponsored independent exploration organizations, more detailed investigation will be carried out on a number of properties held in Canada and other countries.

The Review of Operations section of this Report presents a review of exploration activities carried out during 1979.

#### **Further Information**

Additional information regarding the operations and affairs of Rio Algom is provided in the Review of Operations and the Financial and Supplementary Information Sections of this Annual Report.

#### **Uranium Contracts**

At the end of 1979 approximately 55 million pounds of uranium oxide remained to be delivered from the Elliot Lake operations under Rio Algom's long-term contracts currently in force, compared with approximately 75 million pounds of uranium oxide remaining to be delivered at the end of 1978. This latter amount was reduced during 1979 by deliveries of 4.7 million pounds and by the repudiation by the Tennessee Valley Authority of a contract for the delivery of 17 million pounds of uranium oxide. Legal action against TVA has been taken as described in note 7(g) to the consolidated financial statements. New sales contracts were obtained during 1979 for 2.8 million pounds of uranium oxide of which 0.5 million pounds were delivered during the year.

The principal deliveries under the contracts held by Rio Algom prior to the amalgamation will be made from 1980 through 1990 and will be completed in 1992. About 10 million pounds of the uranium deliveries from Elliot Lake will be made under contracts entered into in 1966 which are of the base-price-plus-escalation type. These contracts have been or are being renegotiated to recognize changes in economic conditions. The balance of about 45 million pounds will be made in fulfillment of contracts entered into in 1974. These provide for prices to be determined on an annual basis at the higher of a minimum price and a settlement price to be determined in advance of each delivery year, taking into account free world market conditions for uranium oxide for the delivery year. Deliveries under this type of contract are scheduled to commence in 1981.

As a result of the amalgamation referred to above the contract for the delivery by Preston to Ontario Hydro of approximately 72 million pounds of uranium oxide from its Stanleigh mine in the Elliot Lake area from 1983 until approximately 2020 became the direct responsibility of the continuing corporation, Rio Algom Limited. Thus, the combined commitments for the delivery of uranium oxide from the Elliot Lake area are now approximately 127 million pounds. The selling price of the deliveries to Ontario Hydro will be determined annually. It will be the sum of (i) a base price which includes total operating costs of the Stanleigh Project, an allowance for amortization of all preproduction and subsequent capital costs, taxes attributable to the Stanleigh Project (exclusive of income taxes), and a profit allowance of \$5 per pound of uranium oxide produced, which is subject to escalation, plus (ii) an additional amount equal to one-third of any excess of the estimated free market price of uranium oxide over the base price.

#### **Capital Investment Programs**

Over the past five years expenditures on capital programs have totalled \$358.3 million. For the most part the expenditures were to expand operations, meet environmental requirements, improve quality and increase efficiency. Relatively minor amounts were expended for normal replacements. Of this total \$256.8 million related to uranium operations, \$51.6 million to copper operations, \$49.2 million to steel operations and \$0.7 million to general corporate expenditures.

Most of the capital expenditures of \$256.8 million on uranium operations during this period were incurred under an expansion program initiated in 1975 to provide capacity to produce uranium oxide committed for future delivery. The program involved increasing the ore processing rate of the Quirke complex from 4,500 to 7,000 tons of ore per day and the development of the closed down Panel mine and mill to process ore at the rate of 3,300 tons per day. A major program was also undertaken to provide housing and amenities for the large number of additional people required to carry on the expanded Elliot Lake operations. Expansion of the Quirke complex was completed in April 1978 and the Panel mine and mill were brought on stream in November 1979. In each case these projects were completed successfully, ahead of schedule and below budget. The average new capital investment required for each of the 1,300 new jobs created by this program is approximately \$200,000.

The Lornex copper-molybdenum mine near Kamloops, British Columbia began commercial operations late in 1972. Capital expenditures over the five years 1975 through 1979 have been \$51.6 million. In addition to \$4.3 million expended in 1979 on the current expansion of the mine and mill and to normal replacements of production equipment, substantial expenditures were made to improve operating efficiencies and metal recoveries and to support the increase in the daily average milling rate from the design rate of 38,000 to the level of 48,000 tons that has been achieved.

Capital investments in steel operations during this period include the new melt shop at the Welland plant which together with its associated air pollution control system cost \$28 million. The operation of this melt shop is now at a standard that meets or exceeds the targets that were set when the program was initiated. It is a basic steel making facility that utilizes the most advanced proven technology for production efficiency, energy conservation and pollution control. It also provides a base for increasing the production at the Welland plant when this is warranted by market conditions.

The development of Rio Algom's uranium properties on the North Limb of the Elliot Lake field has now been virtually completed. General studies are in progress regarding development of those in the South Limb, namely Milliken, Lacnor and Nordic, which have been shut down for some years; they contain substantial uranium deposits which may be commercially recoverable depending on the course of future economic conditions. As a result of the amalgamation the Stanleigh mine at Elliot Lake will be developed and operated as a property of the continuing corporation; this project is proceeding on schedule and commencement of production is planned for mid-1983. When full operation at the design average milling rate of 5,000 tons of ore per day is achieved at Stanleigh, approximately 1,100 additional people will be employed on a long term basis.

As previously announced the Lornex mining and ore processing rate is to be expanded by approximately 68%. Preparatory work has commenced and production at this expanded level is planned for mid-1981. The \$160 million cost of this expansion exceeds the amount of \$144 million that was expended in developing the original operation. When the expansion is completed it is expected that 325 additional people will be employed at Lornex on a long term basis; this represents a capital cost of almost \$500,000 for each new job created.

The capital invested in carrying out these productive projects represents a major commitment to the future under the private sector system by the Corporation, and by Ontario Hydro in relation to its financing of the Stanleigh mine.

#### Outlook

As has been stated Rio Algom's operations were highly successful in 1979; the capital and other programs that have been carried out together with others that are under way are expected to provide a firm base for the future.

Copper prices were higher in 1979 than in recent years. The average of the month end London Metal Exchange prices was U.S. \$0.76 per pound in 1979 as compared to U.S. \$0.62 last year. The highest month end price in 1979 was U.S. \$1.09 per pound for September. Whether these price levels and the foreign exchange rates applicable thereto will prevail in the context of future economic conditions is uncertain. Molybdenum prices reached record levels last year; there was some indication of softening towards year end but the demand for this metal as an alloy in steel used by the energy industries suggests that its price may be less vulnerable to an expected decline in general economic activity than would otherwise be the case. Lornex provides one of the few instances where the expansion of copper production capacity is viable under current economic conditions. Its original plant is now debt free, except for minor housing loans, and despite the relatively high capital cost of its new facilities it should retain its position as a world scale competitive cost producer of copper and molybdenum.

Markets for some of the products of Atlas Steels have softened. This has been accentuated particularly by the softening of demand for automobile related steels; although margins have been historically low in this market, it normally consumes important volumes. To this point Atlas has been reasonably successful in offsetting the effect of the downturn in this market by diverting, steel to the capital project construction sector. Atlas Steels' Tracy, Quebec plant, which was shut down for nine months in 1979 because of a labor dispute, is expected to operate normally in 1980 after a start-up period; it must however regain market position lost to competitors during the strike.

Atlas Alloys' metal service centres achieved record sales and earnings in 1979. This is a strong, broadly based organization that is well positioned for the future.

The immediate effect of the repudiation by the Tennessee Valley Authority of the contract for purchase of uranium was to reduce anticipated cash flow and earnings for 1979; it also reduced Rio Algom's total uranium contract backlog position and makes it necessary to obtain replacement contracts. Marketing programs were initiated and are continuing and, although the general market for uranium is not strong, the Corporation has a number of important factors in its favor. These include long established relationships with uranium users, an impeccable record of delivery performance and available capacity in operations that are financed and on stream. In the six month period between the repudiation of the contract and the end of the year new contracts for the delivery of 2.8 million pounds of uranium were obtained.

#### Legal Matters

The legal actions and proceedings to which the Corporation and/or its wholly-owned United States subsidiary are parties are described in note 7(g) to the consolidated financial statements.

#### Directors

Mr. J. Herbert Smith and Mr. Roy W. Wright who have been directors of Rio Algom since 1960 will not present themselves for re-election as directors of the Corporation at the Annual and General Meeting on April 30, 1980 because they are retiring. Mr. Smith brought to the board an invaluable perspective from his involvement in Canadian business as a chief executive officer and a director of other major corporations. His participation in Rio Algom's affairs over the years has made an important contribution to its success. During his lengthy period of association with this organization Mr. Wright made major and valued contributions to its growth and progress, especially in its formative period. Both of these gentlemen will be missed and the other directors of the Corporation wish to formally acknowledge the contributions that they have made.

At the Annual and General Meeting to be held on April 30, 1980 you will be asked to authorize a decrease in the Board of Directors from fourteen to twelve members.

#### Appreciation

The year 1979 was successful by most standards. The achievements last year are important but the immediate results alone do not portray adequately the effects of the individual and collective efforts of the people who are responsible for the longer term success of our business. The Directors wish to express their appreciation to all who have contributed.

On behalf of the Board of Directors of Rio Algom Limited\*

R.D. Armstrong	G.R. Albino
Chairman and Chief	President and Chief
Executive Officer	Operating Officer

Toronto, Canada

February 29, 1980

<sup>\*</sup>The continuing corporation resulting from the amalgamation on January 30, 1980 of Rio Algom Limited and Preston Mines Limited.

### **Review of Operations**

### Mining

Revenue from mine production was \$347.8 million in 1979 compared to \$241.2 million in 1978. Operating profit from mining operations before exploration, corporate expenses and interest and before providing for income and mining taxes and minority interests was \$167.6 million compared to \$87.1 million in 1978.

As stated in the Directors' Report the 1979 and 1978 revenue and earnings figures are not fully comparable because the 1978 figures include the revenue and net earnings of Rio Algom Corporation, the subsidiary of one of Rio Algom's subsidiaries, which operates the Lisbon mine located near Moab, Utah in the United States of America.

#### Uranium – Elliot Lake

Revenue from uranium mining operations conducted in the Elliot Lake area in northern Ontario was \$157.2 million in 1979 compared to \$153.1 million in 1978. Operating profit before income and mining taxes was \$43.3 million in 1979 compared to \$57.0 million in 1978.

Comparative milling, metallurgical, production and shipping data from uranium operations in Canada for the years 1979 and 1978 are as follows:

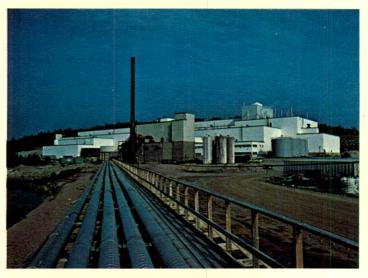
	Quirke		Panel
	1979	1978	1979(1
Tons of ore processed (thousands)	2,452	<sup>2)</sup> 2,166	143
Average tons processed per day	7,004	6,223	2,419
Average recovery per ton (lbs.)	2.3	2.3	1.2
Average recovery	93.8%	93.7%	65.9%
Pounds of uranium oxide produced (thousands)	5,294	4,952	394(3
Pounds of uranium oxide delivered (thousands)	4,739	(4) 5,420	_

(1) Panel mine commenced commercial operation in November 1979.

(2) Includes 104,000 tons of Panel ore processed during the preproduction period.

(3) Includes 234,000 pounds produced during the Panel preproduction

(4) Includes deliveries from both Quirke and Panel.









From top: The mill at Panel mine, back in production after 18 years. Brought on stream ahead of schedule and below budget, Panel will provide employment for more than 850 people.

Historic moment. First uranium oxide comes off a drum filter at Panel and project engineer Ed Mark holds some of the "yellowcake" on his fingertips. Right: Inside a grinding mill as it is installed in the Panel plant. Design milling capacity at the reactivated facility is 3,300 tons of ore per day.



During 1979 virtually all of the production came from the Quirke mine; there was some production from the Panel mine which commenced commercial operations in November 1979. The Quirke mill which commenced production at its expanded capacity in 1978 operated at its designed capacity throughout the year. Average initial processing recovery at the Panel mill is regarded as normal and is expected to increase during 1980.

Operating costs were higher in 1979 due to increased levels of operations and continuing increases in the costs of energy, operating supplies, wages and employee benefits relating to both Quirke and Panel.

The second phase of the Elliot Lake expansion program was completed when the Panel mine commenced commercial production. The planned processing rate for the Panel mine and mill, which had been closed down since 1961, is 3,300 tons per day. That project was completed ahead of schedule and under budget as was the increase in the mining and ore processing capacity of the Quirke complex from 4,500 to 7,000 tons per day which was completed in 1978. The result of these two expansion projects will be to increase the ore processing rate at the Elliot Lake mines from 4,500 to 10,300 tons per day. Production of uranium oxide will not increase proportionately because the grade of ore mined will decline in future years.

A housing program was initiated in 1975 to provide accommodation for the 1,500 additional people required for the expanded operations at Quirke and Panel. By the end of 1979 construction of a total of 1,287 housing units had been approved of which 1,113 had been completed; 174 units were at various stages of construction at year end. The housing units comprise a variety of detached and semi-detached dwellings, townhouses and apartments.



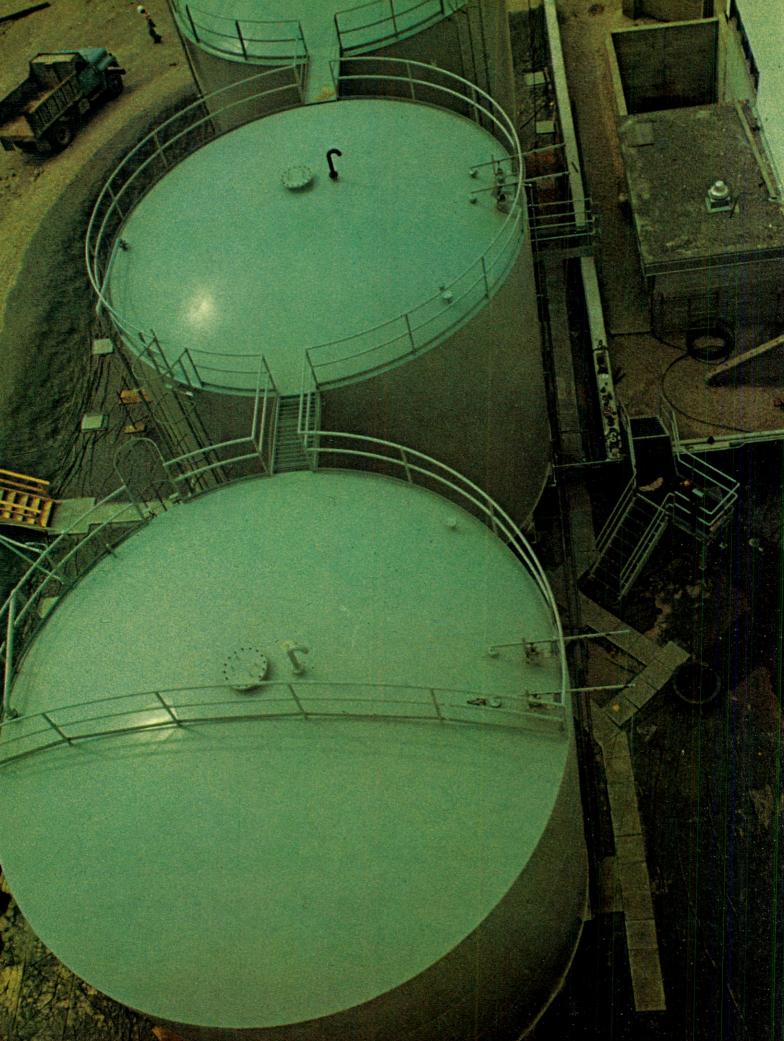




With a long-term uranium contract in hand for the Stanleigh mine's output, reactivation of the mine-mill complex after two decades went into full swing in 1979. Photos from top show: construction of pipe gallery that will carry waste from mill to tailings ponds; the forming and pouring of foundation for Stanleigh hoist house; and the preparation of a tailings dam site. Right: Forming "collar" for Stanleigh mine shaft. The property will provide some 72 million pounds of uranium oxide to Ontario Hydro between the years 1983 and 2020.

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Delays in obtaining government approvals for new housing sites continue to impede construction of accommodation for the people who will be needed to carry out current and planned programs at Elliot Lake.

The shortage of skilled people required for the Elliot Lake operations has been alleviated to some extent by training courses that were established in 1973 and which have been expanded in scope each subsequent year.

Hearings by the Ontario Environmental Assessment Board regarding the effect on the environment of the planned expansion of uranium mining and milling operations in the Elliot Lake area were completed in March 1979 and the final report of the Board was released in May. The Board was of the general opinion that the technology exists to carry out the expansion at Elliot Lake in an environmentally acceptable manner in the short term. The Board made a total of 109 recommendations of which 60 were directed to operations of uranium mining and milling facilities in the Elliot Lake area with the balance being directed to various government agencies and departments. Of the recommendations directed to Rio Algom, several have already been implemented and others are being studied. The Ontario government is studying the findings and recommendations of the Board. It is expected that once that government has decided on its response to the Board's report, a statement would be issued by the provincial Minister of Environment with respect to the government's position.





Left: Sulphuric acid tanks at the Panel mill at Elliot Lake. The acid is used in the chemical process by which uranium oxide is obtained from the ore. Above: Quirke mine at Elliot Lake. The mine-mill complex continues to be Rio Algom's largest single uranium operation with an increased design milling capacity of 7,000 tons of ore per day. Lower photo shows work underway preparing a tailings dam.



#### Uranium - Lisbon Mine

Comparative milling, metallurgical, production and shipping data from uranium operations for the years 1979 and 1978 are as follows:

	1979	1978
Tons of ore processed (thousands)	273	267
Average tons processed per day	751	741
Average recovery per ton (lbs.)	3.7	4.0
Average recovery	93.6%	94.6%
Pounds of uranium oxide produced (thousands)	994	1,076
Pounds of uranium oxide delivered (thousands)	1,200	1,000

The tonnage of ore processed in 1979 set an all time record for the mine. The average grade of ore treated was lower than in 1978 in accordance with the mining plan for this operation. Approximately 40% of the ore processed during the year came from previously defined ore; the balance represented new ore found through exploration of the Lisbon property and from a higher extraction rate in developed areas of the mine. A number of parts of the Lisbon property which have potential for additional ore are being investigated.

Primarily because of increased costs net earnings in 1979 were significantly lower than in the preceding year.







Recreation at its finest is one of the attractions of Elliot Lake. No one has to go very far to enjoy the outof-doors whether it be camping, sailing or a soap box derby. And indoor recreation centres are among the best anywhere.



#### **Copper-Molybdenum**

The results of operations at the copper-molybdenum mine in British Columbia and the financial position of Lornex Mining Corporation Ltd., which was 68.1% owned by Rio Algom at year end, are included with those of Rio Algom on a fully consolidated basis. Rio Algom's interest in Lornex's net earnings in 1979 was \$39.2 million compared to \$9.8 million in 1978.

The comparative operating results of Lornex as an entity are summarized as follows:

	1979	1978
	(In thousands)	
Net revenue from production	\$190,572	\$88,096
Operating expenses	56,999	49,028
Amortization and depreciation	9,544	9,264
	66,543	58,292
Earnings before interest and taxes	124,029	29,804
Investment income (net of		
interest costs)	1,868	(3,940)
Earnings before taxes	125,897	25,864
Income and mineral resource		
taxes	68,328	11,510
Net earnings for year	\$ 57,569	\$ 14,354
Minority shareholders' interests in		
above earnings	\$ 18,364	\$ 4,579

Lornex's earnings for 1979 were \$57.6 million compared to \$14.4 million in 1978 and were the highest in Lornex's history representing an increase of approximately 300% over the previous year. The increase in net earnings in 1979 was due primarily to improved prices for molybdenum and copper, both including higher foreign exchange gains; silver prices were also higher. The gross revenue price per payable pound of molybdenum averaged \$16.65 in 1979 as compared to \$4.36 in 1978 while the gross revenue price per payable pound of copper averaged \$1.06 in 1979 as compared to \$0.73 in 1978.







Left: Lornex mine's first Family Day attracted some 2,000 visitors. Aside from free hot dogs, pop and coffee, there were displays of giant, 200-ton-capacity dump trucks like the one dominating picnic area, smaller 120-ton trucks, highly-mobile dart loaders, a rescue demonstration and, of course, horseshoe throwing and foot races. Most Lornex employees live in nearby Logan Lake. The community's population will grow because of an announced \$160 million expansion of Lornex operations. The expansion will result in the creation of 350 new permanent jobs.

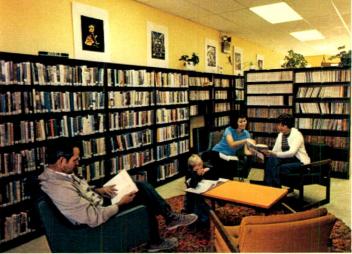
Copper production was virtually unchanged and molybdenum production was about 11% higher than in the previous year. The combined result of volume and price changes was that net revenue from mine production increased to \$190.6 million in 1979 from \$88.1 million in 1978.

The average cost per ton of ore milled (excluding amortization and depreciation) increased to \$2.65 in 1979 from \$2.30 in 1978. This increase is attributable to a higher total quantity of ore and waste material handled in mining operations in 1979, additional work carried out in raising tailings dams and to escalation in the costs of energy, materials and labor.

Comparative operating data for the years 1979 and 1978 is as follows:

	1979	1978
Tons of ore milled (thousands)	17,776	17,557
Average tons milled		
per operating day	48,701	48,100
Average mill head grade		
-copper	0.432%	0.446%
-molybdenum	0.017%	0.016%
Average mill recovery		
-copper	90.2%	89.5%
-molybdenum	75.1%	71.6%
Payable metal in concentrate proc	duced	
(thousands)		
-copper (pounds)	134,194	135,422
-molybdenum (pounds)	4,436	3,985
-silver (ounces)	487	507
Pounds of payable metal in conce	ntrate	
delivered (thousands)		
-copper	129,632	134,621
-molybdenum	4,541	4,110





Logan Lake's facilities include a shopping plaza, a well-stocked library, school, hotel and recreation centre. More housing will be built to accommodate the additional employees necessitated by the expansion of Lornex operations. Included will be a 55unit apartment building, such as the building opposite at upper right, 95 detached houses, and lots for 50 mobile homes. Some 60 percent of Lornex employees live in Logan Lake, the balance reside in the nearby centres of Kamloops, Ashcroft and Cache Creek. The comparative financial position of Lornex as an entity as at December 31 is summarized as follows:

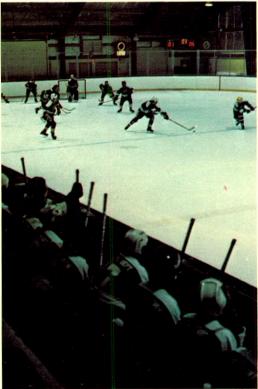
	1979	1978
	(In thousands)	
Cash and short term deposits	\$ 77,344	\$ 7,936
Receivables and inventories	45,956	36,010
Current assets	123,300	43,946
Current liabilities	66,743	16,740
Working capital	56,557	27,206
Fixed and other assets	141,431	142,325
Total assets less current liabilities	197,988	169,531
Deduct:		
Long term debt	1,071	25,448
Deferred income and mineral		
resource taxes	53,925	42,141
	54,996	67,589
Net assets	\$142,992	\$101,942
Minority shareholders' interests in		
net assets	\$ 45,614	\$ 32,519

Net capital expenditures in 1979 were \$8.7 million; capital expenditures are expected to increase substantially in 1980 due to the program for the expansion of the mining and milling complex. In addition to normal equipment replacements in 1979, expenditures totalling \$4.3 million were incurred in connection with the expansion program; an additional \$33.6 million was committed as at December 31, 1979.

The last of the capital bank loan repayments (U.S. \$25 million) was made by mid-1979.

A copy of the Lornex Annual Report for 1979, including the complete financial statements and notes thereto, will be provided upon request.





Hockey is a favorite of the younger set at Logan Lake, but the community recreation centre is also used for curling, dances and other group activities. Since the community is set among the gently-rolling hills of B.C.'s picturesque Highland Valley, outof-doors activities like horseback riding, skidooing, skiing, hunting, or simply picnicking, are no problem.

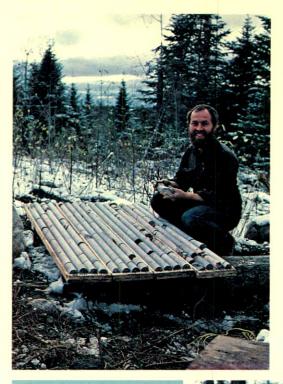
#### Exploration

Exploration expenditures by Rio Algom and its subsidiaries, including expenditures on the Sage Creek coking coal property, increased by 52% to \$9.1 million in 1979 from \$6 million in 1978. The higher level of expenditures reflected a major buildup of exploration activity.

The expanded exploration efforts of Riocanex, the Canadian exploration subsidiary of Rio Algom, were concentrated in Newfoundland, Quebec, Ontario, Manitoba, British Columbia, Yukon and Northwest Territories. At year-end there were 33 technical personnel based in Riocanex's head office in Toronto, regional offices in Toronto and Vancouver and district offices in St. John's, Newfoundland, Fredericton, N.B., Quebec City, P.Q., Thunder Bay, Ontario and Whitehorse, Yukon. Fourteen property agreements were made, diamond drilling totalling 85,000 feet was carried out on 19 properties, and the services of four independent exploration organizations were utilized.

Diamond drilling in the one-mile long, main mineralized sector on the Cape Ray property in southwestern Newfoundland had indicated 800,000 tons of mineralized material grading 0.23 oz. of gold per ton. The fine-grained gold and base metal sulphide mineralization is discontinuous in steeply-dipping quartz veins in incompetent chloritic schists. A program of bulldozer trenching and further drilling will be carried out on the property in 1980 to determine whether additional deposits are present. Riocanex's interest in the property is 90%, subject to a production royalty.

For some years Rio Algom and the Dickenson Mines group have held equity of approximately 60% and 30% respectively in Pidgeon Molybdenum Mines Limited which holds a molybdenum property in northwestern Ontario. Past work had indicated the presence of several hundred thousand tons of material grading 0.34% molybdenum. A review of data carried out in 1979 confirmed that the mineralization on this property appears to have the characteristics of a commercially viable porphyry-molybdenum deposit. Ground







Exploration activity increased substantially during 1979 with programs carried out across much of Canada and internationally. Photos above show geologists in northern Ontario and Quebec checking ore specimens and taking a geophysical instrument reading. Right: A helicopter, the workhorse of modern exploration, lowers drilling equipment at a prospect in the Northwest Territories.





geophysical surveys and a 7,000 foot diamond drilling program were carried out during 1979 with funds provided by Rio Algom and the Dickenson Mines group on a 65-35 basis. Drilling on a portion of the property indicated the presence of 15.8 million tons of material grading 0.08% molybdenum. Drilling in 1980 will further test the property.

A major drilling program on the Mississippi Valleytype Gayna River zinc-lead property in the Northwest Territories failed to intersect high grade mineralization, a prerequisite for that remote property to be of economic interest.

Drilling is currently planned in 1980 on 18 other properties identified as prospective in 1979 and previous years. This program will be extended to other prospects that may be identified by the 1980 program. The policy of sponsoring independent exploration organizations will be maintained. A contract prospecting party found a leadzinc-silver prospect in the Nahanni region of the Northwest Territories in 1979 which will be investigated in 1980.

Studies regarding the Sage Creek coking coal property in southwestern British Columbia, in which Rio Algom has a 60% interest, were continued during 1979 to identify markets that would support the development of this property for production.

#### **Employee Relations**

As at December 31, 1979, Rio Algom and its subsidiaries employed a total of 3,218 persons in mining operations (excluding the United States mining subsidiary). Of these, 2,355 were production employees; 817 employees were engaged in executive, technical, administrative and clerical capacities and 46 employees engaged in exploration activities.

Labor contracts relating to mining operations are in effect in the Elliot Lake area for hourly rated employees, office and technical employees and production and maintenance employees and the operating engineers until September 1, 1981; at the Lornex mine for production, maintenance, office and technical employees until June 30, 1980.





Left: First snowfall of the season covers brush as technicians run a geophysical survey in northern Ontario. Above: Helicopter delivers tent frames for a camp in northern British Columbia. Lower photo shows copper mineralization, green in color, as seen through a microscope. The specimen, from a Rio Algom copper prospect, underwent microscopic study as well as other analysis to determine its characteristics.

#### Steel

Total sales, including metal products purchased from others by the Atlas Alloys metal service centre distribution group for resale, amounted to \$363.0 million in 1979 compared to \$334.9 million in the previous year. Operating profits from these operations before corporate expenses and interest and before income taxes were \$31.7 million in 1979 compared to \$32.8 million in 1978.

As stated in the Directors' Report the 1979 and 1978 sales and earnings figures are not fully comparable because the 1978 figures include the sales and net earnings of Atlas Alloys Inc., a United States subsidiary of Rio Algom.

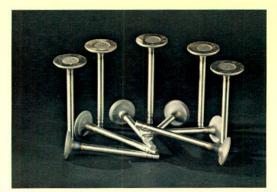
#### **Atlas Steels**

#### Marketing and Distribution

Atlas Steels' sales revenue decreased in 1979 due to the nine-month work stoppage at its Tracy stainless flat rolling facility. The strike at the Tracy plant occurred during a period of strong domestic and international demand for stainless flat rolled products. This caused a disruption in shipments to many of Atlas Steels' major customers.

Welland plant sales revenue increased by more than 25% in 1979 and represented a near capacity level of operation. Import quotas continued to limit direct sales for many specialty steel grades to the U.S. market and sales increases were primarily achieved in the domestic market. Although the important automotive sector declined sharply during the fourth quarter of 1979, replacement sales were achieved in other consuming sectors in Canada. The continuing weakness of Canadian currency permitted a high level of exports by Canadian secondary manufacturers resulting in high demand levels for many specialty steel products. Additionally, markets for capital machinery and equipment as well as for steels used in mining improved in Canada in 1979 and this resulted in increased sales to service centres.

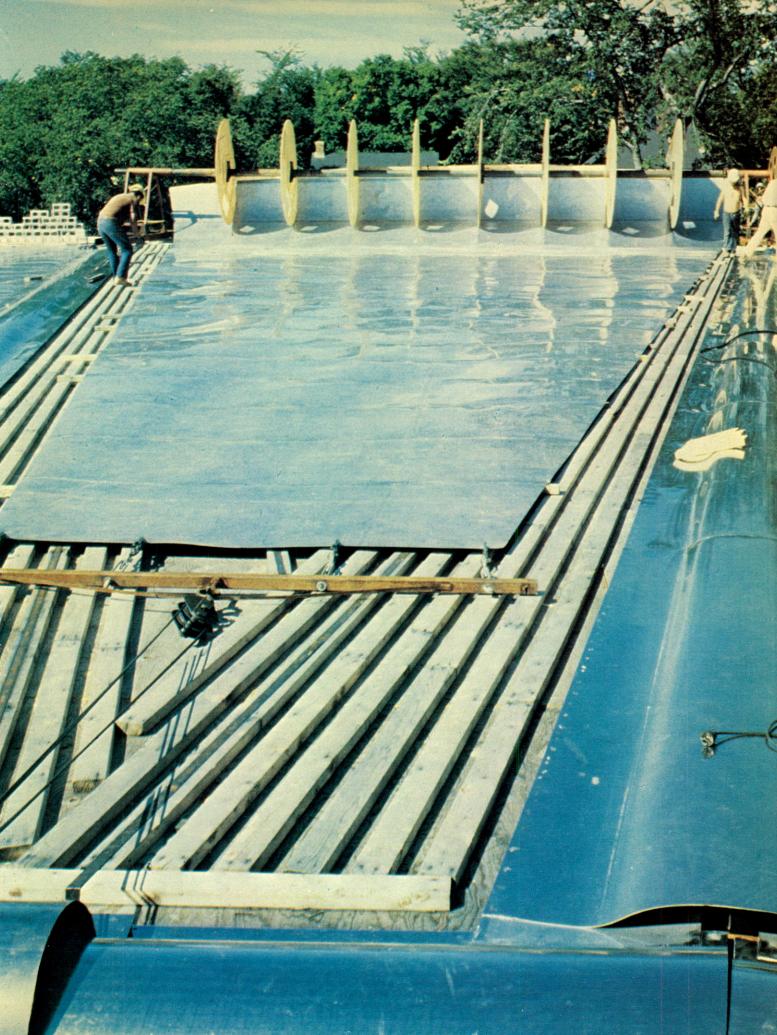
Major increases in raw material, labor and supply costs necessitated price increases on most Atlas Steels' products during the year. The forward outlook for Atlas







Uses of stainless steel continue to increase. They range from automotive valves and high-speed trains to air-supported roofs. The world's first air-supported stainless steel roof was erected at Dalhousie University in Halifax in early 1979. Right: Photo shows stainless sheet being unrolled into place at the university's new sports centre. The roof, covering more than an acre in area, is supported by slightly increased air pressure.



Steel

Steels' sales is mixed. While the automotive sector is expected to remain weak, demand for specialty steel products related to capital and energy oriented projects is expected to remain strong as is demand related to exports by Canadian secondary manufacturers. Although the import quota program in the United States ended in February of 1980, a climate of protectionism regarding the direct role of specialty steel products continues in that market and in other major producing countries.

#### Manufacturing

The Welland plant operated nearly at capacity throughout 1979 and shipments reached record levels. In addition, the new melt shop continued to improve in productivity and cost effectiveness. Mainly as a result of these factors, the Welland plant profits were considerably higher in 1979 than in the previous year. However, a weakening of the order backlog is developing and the value of the 1979 year-end backlog was 15% lower than at mid-1979.

The Tracy plant incurred a loss in 1979 as a result of labor problems. A collective agreement with production and maintenance employees at Tracy expired on November 30, 1978 and negotiation of a new collective agreement with a new union commenced on January 29, 1979. However, a slowdown, which began in late January 1979, continually worsened until production declined to the point where it was judged uneconomical to continue operations and the plant was completely shut down on March 21, 1979 for approximately nine months. A new collective agreement was concluded under the auspices of a provincial conciliator on December 21, 1979. Production and maintenance workers commenced returning to work on December 22, 1979 and start-up of operations began in January 1980.

The costs of several of the key raw materials and utilities embodied in Atlas Steels products continued to escalate sharply, particularly in the last half of the year and there is currently no indication that these increases will abate. It is thus becoming increasingly difficult to improve the current level of cost competitiveness.

Capital spending in 1979 was higher than the previous year. A major project was the commencement of the construction of the Welland north plant water pollution control system which is scheduled for completion in 1981.





Atlas Steels' annual children's Christmas party was held at Niagara Falls' Skylon Tower where 2,300 youngsters and parents took over the indoor amusement park. It was a joyful affair with free rides — including the "yellow bug" elevator to the top of the tower — free hot dogs, cookies and soft drinks.

#### **Atlas Alloys**

Significant gains were made by the Atlas Alloys metal service centre group in 1979, adding to the record levels achieved in the previous year.

In Canada, sales and earnings were at record levels. Major facility additions were made during the year to the Vancouver and Montreal premises and new warehouses were established in Calgary and in Saskatoon. Order intake through the last quarter remained strong and the back order position at year end was at a high level.

In the United States sales were approximately the same in both years while earnings declined somewhat in 1979. Some weakness in automotive related products was offset by gains in other areas and business continued at good levels throughout the year. At year end new and larger premises in Chicago was ready for occupancy. Late in the year, a small tool steel company located in Rockford, Illinois was acquired, which will permit more in-depth market coverage in that area.

Sales and earnings of the Australian subsidiary were significantly ahead of previous records, as were those of the Mexican operation. Operational and organizational changes in the United Kingdom resulted in dramatic improvements in this operation, reversing disappointing results of the past few years.

#### **Employee Relations**

At December 31, 1979, there were 3,513 employees engaged in steel operations of whom 2,196 were engaged in production, 783 in sales and 534 in executive, administrative and clerical functions (excluding the United States metal service centre subsidiary). At the Welland plant labor contracts with the production and maintenance employees are in effect until February 16, 1982 and with the office and technical employees until August 31, 1982.

As previously mentioned, there was a lengthy strike at the Tracy plant during the negotiation of the contract with the production and maintenance employees. The contract is in effect until November 30, 1981. A contract with the office and technical employees which was recently negotiated is in effect until January 31, 1982.



Atlas Alloys' Montreal service centre was expanded by 75 per cent during 1979. Seen in the foreground is the newly-installed automated order filling station for bar products while storage racks are seen in background. The overall facility now comprises 90,000 square feet of warehouse and office space.

### **Auditors' Report** to the Shareholders

We have examined the consolidated statement of financial position of Rio Algom Limited as at December 31, 1979 and the consolidated statements of earnings, retained earnings, contributed surplus and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the corporation as at December 31, 1979 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada February 29, 1980. (March 13, 1980 with respect to Note 12 (b))

**COOPERS & LYBRAND** 

Joper & Lyband.

### **Accounting Policies**

The principal accounting policies followed by Rio Algom Limited and its subsidiaries are summarized hereunder to facilitate a comprehensive review of the financial statements contained in this report.

#### **Basis of Consolidation**

The consolidated financial statements have included the accounts of all significant subsidiary corporations up to December 31, 1978. Because of the court orders which, to the extent indicated under note 7(g), restrict the movement of funds out of the United States, under generally accepted accounting principles the accounts of the corporation's United States subsidiaries have not been consolidated with the accounts of Rio Algom after January 1, 1979 and no part of the net earnings of those subsidiaries has been recognized in consolidated earnings since that date. Accordingly, the consolidated financial statements for 1979 are not fully comparable with those of 1978. The accounts in foreign currencies are stated in Canadian dollars on the following basis:

Current assets and current liabilities at year-end exchange rates; all other assets and any related depreciation and long term liabilities at rates in effect at time of transactions; and revenues and expenses (other than depreciation) at average rates for the year.

#### Valuation of Inventories and Concentrates Awaiting Shipment

Inventories of steel, other metals, raw materials and supplies are valued at the lower of cost and market. Cost is determined generally at average or standard costs which approximate actual. Market for steel and other metals is net realizable value and for raw materials and supplies is replacement cost. Intercompany profits have been excluded from these inventories.

Concentrates awaiting shipment are valued at estimated realizable metal prices.

#### **Depreciation and Amortization**

The following accounting policies are being followed in connection with the depreciation charges of the Corporation:

(i) Mining fixed assets:

Depreciation is being provided on fixed assets on the basis of the shorter of physical life or economic life, as estimated for the individual mining units, the economic life to be adjusted from time to time as conditions warrant.

(ii) Steel fixed assets:

Fixed assets are being depreciated on the straight line method based on engineering estimates of the lives of the assets at the following rates:

Buildings	4% per annum
Plant and equipment	6 <sup>2</sup> / <sub>3</sub> % per annum

Mining properties and preproduction expenditures are being amortized on the same basis as depreciation is provided on mining fixed assets.

Excess of acquisition cost over adjusted book value of Atlas Steels assets is being amortized on a straight line basis over the period ending in 1982.

Debenture discount and financing expenses are being amortized on the debentures outstanding method over the life of the Sinking Fund Debentures Series B of the Corporation, which mature on July 15, 1995.

#### **Capitalization of Interest**

The Corporation follows the policy of capitalizing net interest costs during construction or development only on those projects for which funds have been borrowed; this would normally apply only to such major new projects from beginning of construction or development up to the commencement of commercial operations. In these cases interest earned on borrowed funds during the development and construction period is applied against the interest expense to reduce the amount of interest costs capitalized. Such net interest costs are capitalized because it is considered that they would not have been incurred if the project had not been undertaken and therefore are properly part of the capital cost of the total project.

#### **Development Projects and Exploration**

Development projects are carried forward as assets while the projects are considered to be of value to the Corporation. All exploration expenses have been written off.

#### **Income and Mining Taxes**

The Corporation provides for deferred income and mining taxes on all significant timing differences which represent the tax effects of revenue and expense items reported for tax purposes in periods different than for accounting purposes. Investment tax credits claimed for federal income tax purposes are treated as a reduction of the current year's income tax expense. Such reductions amounted to \$2.8 million in 1979 and \$6.3 million in 1978.

### **Consolidated Statement** of Financial Position

(Thousands of dollars)

#### **Rio Algom Limited**

(Incorporated under the laws of Ontario)

December 31	1979	1978
Current assets:		
Cash and short term deposits	\$ 83,768	\$ 94,496
Receivables and prepaid expenses	82,567	86,471
Inventories and concentrates awaiting shipment (note 2)	220,229	164,592
Total	386,564	345,559
Less:		
Current liabilities:		
Bank loans and overdrafts	10,376	11,948
Accounts payable and accrued liabilities	84,196	81,115
Income and mining taxes	63,123	19,674
Total	157,695	112,737
Working capital	228,869	232,822
Plant and equipment (note 3)	347,495	248,972
Construction in progress, at cost	8,394	78,146
Mining properties and preproduction expenditures (note 4)	73,071	62,152
Excess of acquisition cost over adjusted book value of Atlas Steels assets,		
less amortization	3,134	4,182
Debenture discount and financing expenses, less amortization	743	838
Investment in and advances to affiliated corporation, at cost (note 7(e))	12,898	16,378
Investment in and amounts receivable from United States subsidiary		
corporations (note 9)	27,234	
	472,969	410,668
Total assets less current liabilities	701,838	643,490
Deduct:		
Long term debt (note 5)	92,382	114,676
Deferred income and mining taxes	117,613	104,604
Minority shareholders' interests in subsidiary corporation	45,614	32,519
	255,609	251,799
Excess of assets over liabilities	\$446,229	\$391,691
Ownership evidenced by:		
Capital stock (note 6)	\$108,153	\$108,706
Contributed surplus	20,369	20,236
Retained earnings	317,707	262,749
Total	\$446,229	\$391,691

Approved on behalf of the Board:

G. C. Gray, Director

R. D. Armstrong, Director

### **Consolidated Statement** of Earnings

(Thousands of dollars)

	1070	1078

**Rio Algom Limited** 

Year ended December 31	1979	1978
Revenue:		
Revenue from mine production and sales of steel and other products	\$710,729	\$576,055
Expenses:		
Cost of mine production and steel sales	433,504	385,158
Selling, general and administration	47,044	45,290
Interest (net) (note 10)	4,246	2,224
Depreciation and amortization (note 11)	38,150	32,328
Exploration	9,063	5,951
	532,007	470,951
Earnings before taxes and minority interests	178,722	105,104
Income and mining taxes:		
Current	73,137	17,613
Deferred	11,460	21,095
	84,597	38,708
Earnings before adjustment for minority interests in subsidiary corporation	94,125	66,396
Minority interests in net earnings of subsidiary corporation	18,364	4,579
Net earnings for the year (note 9)	\$ 75,761	\$ 61,817
Earnings per common share	\$ 5.57	\$ 4.53

# **Consolidated Statement** of Retained Earnings (Thousands of dollars)

Year ended December 31	1979	1978
Balance, beginning of year	\$262,749	\$218,943
Add net earnings for the year	75,761	61,817
Deduct:	338,510	280,760
Dividends on preference shares	527	582
Dividends on common shares at the rate of		
\$1.50 per share (\$1.29 in 1978)	20,276	17,429
	20,803	18,011
Balance, end of year	\$317,707	\$262,749

# **Consolidated Statement** of Contributed Surplus (Thousands of dollars)

Year ended December 31	1979	1978
Balance, beginning of year	\$ 20,236	\$ 20,085
Profit on purchase of preference shares for cancellation	133	151
Balance, end of year	\$ 20,369	\$ 20,236

**Rio Algom Limited** 

# **Consolidated Statement** of Changes in Financial Position (Thousands of dollars)

Year ended December 31	1979	1978
Source of Funds:		
Earnings before adjustment for minority interests		
in subsidiary corporation	\$ 94,125	\$ 66,396
Add items included in earnings not involving current		
outlay of funds:		
Depreciation, amortization and other charges (net)	38,399	32,471
Deferred income and mining taxes	11,460	21,095
Funds provided by operations	143,984	119,962
Housing loans and mortgages (net)	5,895	16,932
Repayment of advances to affiliated corporation	3,480	-
Prepaid royalties recovered	1,549	965
	154,908	137,859
Disposition of Funds:		
Expenditures (net) for plant and equipment, construction		
in progress, mining properties and preproduction	86,080	86,329
Dividends on common shares	20,276	17,429
Dividends on preference shares	527	582
Payment of Lornex dividends to minority shareholders	5,275	527
Purchase of preference shares for cancellation	567	690
Reduction of long term debt:		
Rio Algom Limited debentures	3,839	872
Bank loans of subsidiary corporation	24,351	23,377
Investment in and advances to affiliated corporation	-	2,274
Purchase of minority shareholders' interests in subsidiary corporation		816
	140,915	132,896
Increase in Working Capital (1979 excluding U.S. subsidiaries		
no longer consolidated as of January 1, 1979)	13,993	4,963
Working Capital, beginning of year \$232,822		227,859
Less working capital of U.S. subsidiaries		
at December 31, 1978 included therein	214,876	
Working Capital, end of year	\$228,869	\$232,822

1979

1978

### Notes to Consolidated Financial Statements

#### December 31, 1979

#### 1. Accounting policies

The information on page 26 presents a summary of certain accounting policies and is an integral part of these financial statements.

2. Inventories and concentrates awaiting shipment	1979	1978
Mining operations – Mine supplies Concentrates awaiting shipment	\$ 23,281,390 84,226,970 107,508,360	\$ 22,429,165 43,228,200 65,657,365
Steel operations –		
Steel, other metals, raw materials and supplies	112,720,928	98,934,787
	\$220,229,288	\$164,592,152
3. Plant and equipment	1979	1978
Buildings, at cost	\$237,526,194 356,229,881	\$176,774,959 295,891,238
Less accumulated depreciation	593,756,075 247,803,716	472,666,197 225,491,383
Land, at cost	345,952,359 1,542,265	247,174,814 1,796,951
	\$347,494,624	\$248,971,765

Plant and equipment includes \$37,897,346 in respect of assets of mines presently idle which have been fully depreciated.

#### 4. Mining properties and preproduction expenditures

			1210
	Mining properties, at cost	\$ 7,052,536 6,108,385	\$ 9,296,692 7,730,604
		944,151	1,566,088
	Preproduction expenditures, at cost Less accumulated amortization	155,862,614 83,735,933	148,397,069 87,810,741
		72,126,681	60,586,328
		\$ 73,070,832	\$ 62,152,416
5.	Long term debt	1979	1978
	Rio Algom Limited Sinking Fund Debentures (a) - 6¾% Series A maturing on April 1, 1983	\$ 8,102,000	\$ 11,355,500
	- 11 <sup>1</sup> / <sub>2</sub> % Series B maturing on July 15, 1995	49,415,000	50,000,000
	Lornex Mining Corporation Ltd. – Bank loans due August 15, 1981 (U.S. \$25,000,000)		24,350,982
	Housing loans and mortgages payable (b) Less portion included in current liabilities	35,313,499 447,940	29,140,244 170,000
		34,865,559	28,970,244
		\$ 92,382,559	\$114,676,726

(a) The Corporation is required to make sinking fund payments for the retirement of the Sinking Fund Debentures in principal amounts as follows:

Series A - \$3,000,000 on October 1, 1980 to 1982 inclusive; and

Series B - \$2,500,000 on July 15, 1981 to 1994 inclusive.

During the year \$3,253,500 principal amount of Series A debentures was purchased for cancellation; the 1979 requirement having been satisfied in prior years, a total of \$1,355,500 has been applied to satisfy the 1980 requirement

(\$1,644,500 having been purchased prior to December 31, 1978) and \$1,898,000 has been applied toward the 1981 requirement.

During 1979 \$585,000 principal amount of Series B debentures was purchased for cancellation and has been applied toward the 1981 sinking fund requirement.

The Sinking Fund Debentures are secured under a trust deed by a first floating charge upon the property and assets, present and future, of the Corporation.

(b) The housing loans and mortgages payable generally carry interest rates varying from 8<sup>3</sup>/<sub>4</sub>% to 16<sup>3</sup>/<sub>4</sub>%.

#### 6. Capital stock

#### Authorized:

438,016 First Preference Shares with a par value of \$100 each, issuable in series

15,000,000 Common Shares without par value

Issued:	1979	1978
88,016 \$5.80 Cumulative Redeemable First Preference Shares Series A		
(95,022 at December 31, 1978) (redeemable at premiums ranging from 2% to 1%)	\$ 8,801,600	\$ 9,502,200
13,517,194 Common Shares (13,511,269 at December 31, 1978)	99,351,299	99,203,944
	\$108,152,899	\$108,706,144

#### (i) During the year:

(a) 5,925 Common Shares were issued for \$147,355 cash under a Stock Option Plan; and

(b) 7,006 First Preference Shares were purchased for cancellation; the Corporation's obligations for the years 1980 to 1984 inclusive referred to in note 7(c) below have been fulfilled.

- (ii) At December 31, 1979 outstanding options have been granted to employees under a Stock Option Plan to purchase 24,975 Common Shares at a price of \$24.87 per share expiring April 13, 1983.
- (iii) There are restrictions on the payment of dividends in the provisions attaching to the Preference Shares and the Corporation's trust indentures relating to the Series A and Series B Debentures.

#### 7. Commitments and contingencies

- (a) Estimated total cost to complete capital projects as at December 31, 1979 was approximately \$193,411,000 (committed \$37,938,000).
- (b) The Corporation is committed to total minimum rentals in the amount of \$11,986,000 under operating leases for land and buildings which expire from 1981 to 1998. Commitments in each of the next 5 years are approximately \$1,200,000 for each of the first two years and \$750,000 for each of the remaining three years.
- (c) The Corporation is obligated on April 1 in each year to set aside \$300,000 as a retirement fund, to be used to purchase or redeem Preference Shares.
- (d) Unfunded liability for pension funds at December 31, 1979 was estimated at \$32,807,000 (exclusive of pension funds of United States subsidiaries). This is presently being funded over a period of 15 years as follows:
  - (i) \$3,617,000 per annum for 1980 and 1981,
  - (ii) \$3,494,000 per annum for 1982 to 1988 inclusive,
  - (iii) \$3,218,000 per annum for 1989 and 1990,
  - (iv) \$1,985,000 in 1991,
  - (v) \$1,692,000 in 1992,
  - (vi) \$1,574,000 in 1993, and
  - (vii) \$ 241,000 in 1994.
- (e) The shares representing the Corporation's investment in an affiliated corporation have been pledged as security for debt owing by that affiliated corporation.
- (f) The Corporation has a contingent liability to buy back houses and mobile home lots at Lornex's Logan Lake townsite for \$3,522,661 until December 31, 1982; the cost of the buyback declines by 5% per annum thereafter.
- (g) In October, 1976, Westinghouse Electric Corporation commenced an action in the United States District Court for the Northern District of Illinois (the "District Court") in which 29 defendants were named, including Rio Algom Limited ("Rio Algom") and Rio Algom Corporation ("RAC"), a United States subsidiary of Atlas Alloys Inc., a United States subsidiary of Rio Algom. The complaint filed by Westinghouse alleged illegal combinations and conspiracies among the defendants to restrain both the interstate and foreign commerce of the United States in uranium in violation of the Sherman Antitrust and Wilson Tariff Acts, and sought to recover treble damages and to

secure injunctive relief from each of the defendants. On the advice of counsel, Rio Algom did not appear in the action and the resulting default was noted on the court record. RAC has filed an appearance in the action and is contesting Westinghouse's complaint. On January 3, 1979 the District Court entered a final judgment on the issue of liability against Rio Algom and the other defaulting defendants but did not fix the amount of damages.

In July, 1979, RAC and other appearing defendants moved for an order postponing any damage hearing against the defaulting defendants until the trial of the action on the merits. The District Court denied the motion and the denial was appealed.

On February 15, 1980, the Court of Appeals for the Seventh Circuit reversed the decision of the District Court and held that the question of damages must await resolution of the issue of liability as to all parties including the appearing defendants.

Rio Algom has been advised by its counsel that any final judgment granted against it by the U.S. Courts in the Westinghouse litigation would not be recognized or be enforceable in Canada.

On January 24, 1979, the District Court issued a preliminary injunction enjoining Rio Algom and other defaulting defendants from:

- (i) transferring, or causing or permitting others to transfer, any interest in property located within the United States,
- (ii) withdrawing, or causing or permitting others to withdraw, any United States assets from the jurisdiction of the United States, and
- (iii) taking any other action which would result in divesting the defaulting defendants of ownership or control of United States assets or in withdrawing such assets from the jurisdiction of the United States.

Excluded from the effect of the injunction were transfers in the ordinary course of business of assets whose fair market value is less than U.S. \$10,000 and any transfer, 20 days prior notice of which is given to counsel for the plaintiff and to the District Court.

Additional preliminary injunctions were issued by the District Court on April 24, 1979, May 4, 1979 and June 29, 1979, all relating to and having the effect of preventing or delaying any payments and transfers of assets regardless of amount to Rio Algom from its United States subsidiaries. The granting of these injunctions was affirmed by the Court of Appeals in its February 15, 1980 decision.

On June 20, 1979 the District Court issued an order directing Rio Algom to deposit in the registry of the District Court the certificates evidencing the shares of Atlas Alloys Inc. owned by Rio Algom and enjoining any transfer or encumbrance of such shares or the issuance of new shares. On the advice of counsel, Rio Algom has not deposited the Atlas Alloys Inc. share certificates with the District Court.

In November, 1977, thirteen companies, including Rio Algom and RAC, were made defendants in three similar actions (later consolidated for pretrial purposes) brought by Tennessee Valley Authority ("TVA"). In these actions, TVA alleged violations of the United States Sherman Antitrust Act and the Wilson Tariff Act and sought to recover treble damages and to secure injunctive relief from each of the defendants. TVA also sought a declaratory judgment to determine the defendants' liability. On advice of counsel, Rio Algom did not appear in this litigation. RAC has appeared and is contesting TVA's complaint. On September 17, 1979, the District Court, on the motion of TVA, entered the default on the record.

Rio Algom has been advised by its counsel that any final judgment granted against it by the U.S. Courts in the TVA litigation would not be recognized or be enforceable in Canada.

TVA was the purchaser under a contract with Rio Algom entered into in August, 1974 providing for the delivery of the equivalent of 17,000,000 pounds of  $U_3O_8$  in concentrates over the period 1979 to 1990. On June 29, 1979, as agreed with TVA, Rio Algom made delivery to Eldorado Nuclear Limited of 500,000 pounds of  $U_3O_8$  in concentrates for the account of TVA and forwarded to TVA the related invoice indicating an amount due of U.S. \$22,710,000. TVA did not pay the amount of the invoice and on July 18, 1979 the District Court before which the Westinghouse action is pending issued a preliminary injunction enjoining TVA from paying such sum to Rio Algom.

Rio Algom has taken redelivery of the uranium concentrates delivered on June 29, 1979, and has resold them as TVA failed to pay the amount due of U.S. \$22,710,000 at the time and in the manner required by the contract.

On July 18, 1979 TVA amended the requested relief in its November, 1977 actions to seek to void the 1974 contract and to enjoin Rio Algom from enforcing or attempting to enforce the 1974 contract.

In light of the actions taken by TVA, Rio Algom regards the 1974 contract as no longer in force.

On August 14, 1979 Rio Algom commenced an action in the Supreme Court of Ontario against TVA for damages in the amount of six hundred million dollars for breach of contract. The action is based on TVA's unilateral repudiation of its 1974 contract with Rio Algom. On September 13, 1979 Rio Algom commenced a further action in the Supreme Court of Ontario against Westinghouse and TVA for damages (including punitive damages) in the amount of one billion six hundred million dollars. The claim is based upon actions taken by Westinghouse and TVA in relation to the 1974 contract. TVA and Westinghouse have brought motions in the Supreme Court of Ontario requesting relief on a number of jurisdictional and procedural grounds.

#### 8. Unaudited quarterly results

The quarterly revenue, gross profit, net earnings and earnings per share as previously reported in unaudited quarterly reports to shareholders are set forth in the following table (dollars in millions, except per share amounts):

1979	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Year
Revenue	\$171.0	\$151.7	\$174.0	\$214.0	\$710.7
Gross profit	58.8	45.0	79.1	94.3	277.2
Net earnings	19.2	7.9	18.8	29.9	75.8
Earnings per share	1.41	0.58	1.38	2.20	5.57
<u>1978</u>					
Revenue	\$133.0	\$148.9	\$131.8	\$162.4	\$576.1
Gross profit	39.9	49.7	42.6	58.7	190.9
Net earnings	12.8	15.1	14.5	19.4	61.8
Earnings per share	0.94	1.10	1.06	1.43	4.53

#### 9. Effects of applying United States generally accepted accounting principles

The Corporation's accounting policy for conversion to Canadian dollars of accounts in foreign currencies is in accordance with the United States Financial Accounting Standards Board Statement No. 8 with the exception of its requirement to translate long term debt at year-end exchange rates. Long term debt formerly included bank loans of a subsidiary company, Lornex Mining Corporation Ltd., payable in United States dollars, amounting to U.S. \$25,000,000 at December 31, 1978, which had been converted to Canadian dollars at the rate in effect at the time of the borrowing; these loans were repaid in full during 1979. If the United States policy had been followed the Corporation's 1979 earnings would have been increased by \$3,506,000.

In addition, generally accepted accounting principles in the United States require the restatement of earnings of prior periods to exclude the results of unconsolidated subsidiaries when a change occurs in the consolidated entity such as set forth under the accounting policy, "Basis of Consolidation". The effect on consolidated net earnings for the two years ended December 31, 1979 of (1) excluding the Corporation's United States subsidiaries during each year and (2) following the United States policy of converting long term debt at year-end rates of exchange is as follows (expressed in thousands of dollars):

	1979	1978
Net earnings for the year, as reported	\$75,761	\$61,817
Add (deduct): Net earnings of United States subsidiaries	*	(5,541)
Gain on conversion of long term debt at year-end rates of exchange	3,506	363
Net earnings for the year (adjusted on a U.S. basis)	\$79,267	\$56,639

\*Net earnings of the United States subsidiaries for 1979 were \$3,520,000, no part of which has been included in net earnings as reported.

The investment in and amounts receivable from United States subsidiary corporations are valued at cost plus equity to December 31, 1978.

10.	Interest (net)   Interest on demand bank loans   Interest on long term debt   Interest capitalized   Investment and other income	1979 \$ 1,005,795 11,657,503 (957,000) (7,460,431) \$ 4,245,867	1978 \$ 1,328,516 13,274,081 (3,861,000) (8,517,702) \$ 2,223,895
11.	Depreciation and amortization Plant and equipment Mining properties and preproduction expenditures Excess of acquisition cost over adjusted book value of Atlas Steels assets acquired	1979 \$31,970,649 5,131,844 1,047,100 \$38,149,593	1978 \$27,792,666 3,487,755 1,047,100 \$32,327,521

#### 12. Subsequent events

(a) On January 30, 1980 the shareholders of Rio Algom Limited and Preston Mines Limited approved an amalgamation agreement between Rio Algom and Preston, dated as of December 17, 1979, which prescribed the terms and conditions under which the two corporations were amalgamated effective at the close of business on January 30, 1980; the amalgamated corporation will operate under the name of "Rio Algom Limited". Under the amalgamation each outstanding Rio Algom common share not owned by Preston was converted into one common share of the amalgamated corporation (all Rio Algom common shares owned by Preston have been cancelled without any repayment of capital thereon), each outstanding Rio Algom \$5.80 cumulative redeemable first preference share, series A was converted into one \$5.80 cumulative redeemable first preference share, series A of the amalgamated corporation and each outstanding Preston common share was converted into 0.75 of a common share and one 8.5% cumulative redeemable second preference share, series A of the par value of \$5.00, of the amalgamated corporation.

Since the amalgamation is a combination of two corporations under common control it has been accounted for in a manner similar to a pooling of interests. The following pro forma condensed combined statement of financial position combines the consolidated statement of financial position of Rio Algom Limited and the statement of financial position of Preston Mines Limited as of December 31, 1979:

#### Rio Algom Limited (the amalgamated corporation) Pro Forma Condensed Combined Statement of Financial Position As of December 31, 1979 (thousands of dollars)

Current assets	\$386,618
Current liabilities	165,280
Working capital Plant and equipment, construction in progress,	221,338
mining properties and preproduction expenses	468,147
Other assets	44,009
	733,494
Deduct:	
Long term debt	121,686
Deferred taxes	117,613
Minority interests	45,614
	284,913
Excess of assets over liabilities	\$448,581
Represented by:	
First preference shares (ii)	\$ 8,802
Second preference shares (iii)	44,152
Common shares (iv)	49,142
Contributed surplus	36,468
Retained earnings	310,017
	\$448,581

- (i) Assuming the amalgamation had been consummated on January 1, 1979 the pro-forma consolidated earnings of the amalgamated corporation for the year ended December 31, 1979 would have been \$75,694.
- (ii) Reflects issue of 88,016 \$5.80 cumulative redeemable first preference shares, series A of the par value of \$100 each to previous Rio Algom first preference shareholders.
- (iii) Reflects issue of 8,830,499 8.5% cumulative redeemable second preference shares, series A of the par value of \$5 each to previous shareholders of Preston common shares.
- (iv) Reflects issue of 14,219,428 common shares as follows:
  - (A) 7,596,554 shares to previous common shareholders of Rio Algom (excluding those shares owned by Preston);
  - (B) 6,622,874 shares to previous shareholders of Preston common shares at ratio of 0.75 common share of the amalgamated corporation for each Preston share.

(b) On January 31, 1980 a shareholder of the corporation, formed by the amalgamation of Rio Algom Limited and Preston Mines Limited referred to above, requested the Minister of Consumer and Commercial Relations to cancel the corporation's certificate of amalgamation pursuant to Section 250 of The Business Corporations Act of Ontario. On February 7, 1980 the Minister informed the shareholder that his request was denied. On March 7, 1980 the same shareholder filed a notice of appeal from the denial to the Divisional Court. The notice of appeal does not set out the relief sought by the shareholder.

#### 13. Asset replacement cost (unaudited)

Historically, the impact of inflation on the Corporation's production costs has been generally greater than the corresponding change in the general price level. In its steel operations the Corporation has historically not been able to compensate for cost increases by increasing selling prices. In its mining operations selling prices are generally either increased by application of escalation formulae designed to compensate for unit cost increases, or are determined by reference to world commodity prices.

Due to inflation the replacement of plant and equipment with assets having equivalent productive capacity almost always requires a substantially greater capital investment than was required to purchase the assets which are being replaced.

The Corporation's annual report on Form 10-K (a copy of which is available upon request) contains certain specific information with respect to year-end replacement cost of inventories and productive capacity of its operations and the approximate effect which replacement cost would have had on the computation of depreciation expense for the year, as well as the steel operations' cost of sales.

## **Supplementary Information**

Five Year Review (Thousands of dolla	ars) 1979(1	) 1978	1977	1976	1975
Revenue	\$ 710,729	\$ 576,055	\$ 486,587	\$ 401,611	\$ 367,382
Investment and other income	7,460	8,518	10,114	10,856	4,202
	718,189	584,573	496,701	412,467	371,584
Cost of mine production and steel sales	433,504	385,158	332,843	271,624	239,401
Selling, general and administration	47,044	45,290	39,397	36,031	31,675
Interest expense (note 2)	11,706	10,742	9,406	8,451	8,029
Depreciation and amortization	38,150	32,328	25,602	20,652	20,419
Exploration	9,063	5,951	6,391	6,827	6,198
	539,467	479,469	413,639	343,585	305,722
Earnings before taxes and minority interests	178,722	105,104	83,062	68,882	65,862
Income and mining taxes	84,597	38,708	37,695	31,926	35,620
	94,125	66,396	45,367	36,956	30,242
Minority interests in net earnings of subsidiary	18,364	4,579	2,552	5,327	210
Net earnings	\$ 75,761	\$ 61,817	\$ 42,815	\$ 31,629	30,032
Production Data					
Uranium in concentrate (pounds – 000's)	5,454	6,028	5,468	5,534	5,806
Copper in concentrate (pounds - 000's)	134,194	135,422	141,111	145,712	116,811(3)
Molybdenum in concentrate (pounds - 000's) .	4,436	3,985	3,795	3,769	3,084
Steel (tons – 000's)	193	208	195	161	161
Financial Data					
Per share of common stock					
– Net earnings	\$ 5.57	\$ 4.53	\$ 3.12	\$ 2.29	\$ <u>2.28</u>
– Dividends	1.50	1.29	1.08	1.00	1.00
– Equity	32.36	28.29	25.03	22.97	21.66
Long term debt (000's)	\$ 92,382	\$ 114,676	\$ 121,993	\$ 133,987	\$ 88,468
Shareholders' equity (000's)	\$437,427	\$ 391,691	\$ 348,534	\$ 321,748	\$ 30 <mark>3,971</mark>
Common shares outstanding (000's)	13,517	13,511	13,510	13,507	13,490
Capital expenditures (000's)	\$ 86,080	\$ 86,329	\$ 95,392	\$ 60,952	\$ 29 <mark>,</mark> 504
Number of shareholders	10,300	10,700	11,300	11,800	12 <mark>,700</mark>
Number of employees	6,878	6,658	5,922	5,544	5,144
Notes:					

(1) As explained in note 9 to the consolidated financial statements the operations of the United States subsidiaries for 1979 have not been included in the above information and the net earnings of those U.S. subsidiaries for 1979, amounting to \$3,520,000, are not included above. Net earnings (losses) of those U.S. subsidiaries for the preceding four years were included in the following amounts:

1978 - \$ 5,541,000;	1976 - (19,000);
1977 - \$ 3,290,000;	1975 - \$843,000.

- (2) The amounts shown above for interest expense for 1979, 1978, 1977, 1976 and 1975 do not include interest capitalized in the amounts of \$957,000, \$3,861,000, \$4,292,000, \$2,351,000 and \$930,000, respectively.
- (3) The Poirier copper mine ceased operations June 27, 1975.

## **Business Segment Data**

The operations of the Corporation and its subsidiaries may be grouped into segments. The primary operations of each segment are as follows:

Business Segment	Operations
Uranium	Underground mining and milling of uranium ore and sale of uranium concentrates.
Copper-molybdenum	Open pit mining and milling of copper and molybdenum ore and sale of concentrates.
Steel	Manufacture and/or distribution of stainless steels, machinery and other steels and other metal products.

As explained in Rio Algom's accounting policies the accounts of Rio Algom's two United States subsidiaries have not been consolidated with those of Rio Algom after January 1, 1979. Accordingly, most of the figures reported in this Business Segment Data section for 1979 are not fully comparable with those of prior years; the uranium and steel segments are both affected in this respect.

Revenue from mine production and sales of steel and other products, by segment, are as follows (all are to unaffiliated customers except 1979 steel sales of \$9.6 million to a United States subsidiary):

		Year Ended December 31,			
	1979	1978	1977	1976	1975
			(In thousands	)	
Uranium	\$157,206	\$153,074	\$132,008	\$ 93,326	\$ 93,416
Copper-molybdenum	190,572	88,096	75,449	82,940	55,378
Steel	362,951	334,885	279,130	225,345	218,588
Consolidated	\$710,729	\$576,055	\$486,587	\$401,611	\$367,382
The operating profit of each segment is as follows: Uranium Copper-molybdenum	\$ 43,265 124,296	\$ 57,022 30,068	\$ 58,107 19,281	\$ 37,270 34,906	\$ 49,215 13,814
Steel	<u>31,694</u> 199,255	<u>32,771</u> 119,861	17,733 95,121	7,192	<u>19,270</u> 82,299
Deduct:					
Exploration	9,063	5,951	6,391	6,827	6,198
Corporate expenses	7,224	6,582	6,376	6,064	6,412
Interest (net)	4,246	2,224	(708)	(2,405)	3,827
	20,533	14,757	12,059	10,486	16,437
Earnings before taxes and minority interests	\$178,722	\$105,104	\$ 83,062	\$ 68,882	\$ 65,862

Operating profit is revenue less applicable operating expenses. In computing operating profit none of the following items has been deducted: exploration, general corporate expenses, interest expense (net of investment and other income) and minority interests in net earnings of a subsidiary.

During the last five years the following products contributed the percentages of consolidated revenue shown:

	1979	1978	1977	1976
Uranium	22%	27%	27%	23%
Copper-molybdenum	27	15	16	21
Stainless steels	20	27	28	26
Machinery steels	12	12	11	8
Other products	19	19	18	22
	100%	100%	100%	100%

Identifiable assets of each segment are as follows:

Automation of Carton of Bureline and the second second					
	1979	1978	1977	1976	1975
			(In thousands)	)	
Uranium	\$313,981	\$242,902	\$171,295	\$116,572	\$115 <mark>,644</mark>
Copper-molybdenum	257,208	179,209	188,504	189,875	172,817
Steel	240,673	235,225	212,630	200,147	180,392
Segment identifiable assets	811,862	657,336	572,429	506,594	468,853
General corporate assets	47,671	98,891	110,216	123,525	72,262
Total assets	\$859,533	\$756,227	\$682,645	\$630,119	<u>\$541,115</u>

Segment identifiable assets are those assets that are used in the operations of each segment. General corporate assets are principally cash and short term deposits, investment in and advances to an affiliated corporation and, in 1979, investment in and amounts receivable from United States subsidiary corporations.

Depreciation, depletion and amortization expense of each segment is as follows:		Year Ended December 31,	
	1979	1978	
	(In tho	usands)	
Uranium	\$ 19,529	\$ 13,927	
Copper-molybdenum	9,278	9 <mark>,001</mark>	
Steel	9,215	9,307	
Segment depreciation, depletion and amortization expense	38,022	32,235	
General corporate depreciation	128	93	
Total depreciation, depletion and amortization expense	\$ 38,150	\$ 32,328	

Net capital expenditures of each segment including capitalized interest are as follows:

#### 1979 1978 (In thousands) \$ 69,736 \$ 77,283 Uranium . . . . 4,427 Copper-molybdenum 8,657 Steel . . . . . . . . . . . . 4,571 7,418 Segment capital expenditures ..... 85,811 86,281 General corporate capital expenditures 269 48 Total capital expenditures (net) \$ 86,080 \$ 86,329

Year Ended December 31,

1975

25%

15

27 12

21

100%

December 31

Rio Algom's foreign operations are conducted by subsidiaries in three countries (four countries in 1978 and prior years, including the United States of America); domestic divisions make export sales in various parts of the world. Details of foreign and domestic revenue are as follows:

	Year Ended December 31,		
	1979	1978	1977
		(In thousands)	)
Domestic operations (Canada) (a)(b)	\$668,827	\$489,326	\$417,898
Foreign operations – United States (except 1979), Australia, United Kingdom			
and Mexico	41,902	86,729	68,689
Consolidated revenue	\$710,729	\$576,055	\$486,587

(a) Includes export revenue from sales to unaffiliated customers (and in 1979 revenue from sales to a United States subsidiary) of approximately \$347,513,000, \$231,830,000 and \$185,874,000

in 1979, 1978 and 1977, respectively, as follows:		Year Ended December 31,		
	1979	1978	1977	
		(In thousands)		
Japan	\$ 92,517	\$ 91,708	\$ 80,545	
United States (1979 sales includes sales of \$9.6 million to				
a United States subsidiary)	86,034	47,016	28,204	
United Kingdom	66,969	57,849	61,149	
Other countries	101,993	35,257	15,976	
	\$347,513	\$231,830	\$185,874	

(b) Does not include revenue from inter-company sales to foreign operations of \$1,262,000 in 1979, \$19,292,000 in 1978 and \$14,926,000 in 1977.

Operating profit by domestic and foreign operations is as follows:

Operating pront by domestic and foreign operations is as renowed.			
	1979	1978	1977
		(In thousands)	
Domestic (Canada)	\$192,386	\$105,690	\$ 85,385
Foreign	6,869	14,171	9,736
Operating profit of segments	\$199,255	\$119,861	\$ 95,121

Year Ended December 31.

Identifiable assets of Rio Algom's foreign operations totalled \$25,363,000, \$60,971,000 and \$52,569,000 at December 31, 1979, 1978 and 1977, respectively.

## **Price Range of Common Shares and Dividends Paid**

The following table shows the high and low prices for Rio Algom common shares on The Toronto Stock Exchange and dividends paid on these shares during 1979 and 1978.

	1979	1978	Dividends paid per share
First Quarter	\$40 - 34 4/8	\$28 1/8 - 24 6/8	1979 May 30 – 75¢
Second Quarter	37 2/8 - 31 2/8	33 2/8 - 28 1/8	November 29 – 75¢
Third Quarter	37 – <u>28</u>	39 2/8 - 31 5/8	1978 June 29 – 54¢
Fourth Quarter	32 2/8 - 25 6/8	38 4/8 - 32 4/8	December 29 – 75¢

## Management Discussion and Analysis

In 1976 earnings before taxes and minority interests increased by \$3,020,000. Operating profits declined by \$2,931,000, consisting of decreases of approximately \$12,000,000 each in steel and uranium offset by a \$21,000,000 increase in copper. The increase in coppermolybdenum profits was due to an increase in copper production and slightly higher average copper prices at Lornex which was 66.5% owned by Rio Algom. Uranium profits were significantly lower since price escalation formulae in long term contracts and renegotiation of some contract prices were not sufficient to offset somewhat lower grades and substantially higher mine operating costs. In addition, 1975 earnings had benefitted from two spot sales of uranium oxide at then prevailing market prices. In the steel operations there was a substantial deterioration in earnings caused by depressed market conditions, a weaker product mix, reduced profit margins due to competitive pressures, a nine week strike at the Atlas Steels' Tracy plant and higher operating expenses; steel earnings were also affected adversely by deterioration in the values of currencies in Mexico, Australia and the United Kingdom. Investment and other income was higher in 1976 because of a greatly improved cash position, higher interest rates earned on funds invested in 1976 and the inclusion of the \$1.5 million gain realized on the sale of the plant and equipment of the Mines de Poirier copper mine during the second quarter of 1976. Income and mining tax provisions were \$3,694,000 lower in 1976 mainly because of lower earnings in the steel and uranium mining operations. Minority interests in net earnings of a subsidiary increased by \$5,117,000 in 1976 due to the improved net earnings of Lornex.

Earnings before taxes and minority interests were \$14,180,000 higher in 1977. Operating profits were \$15,753,000 higher in 1977, comprised of increases of \$20,837,000 in uranium and \$10,541,000 in steel offset by a decrease of \$15,625,000 in copper-molybdenum profits. Uranium earnings increased primarily because of renegotiation of export contract prices; a significant portion of the increase related to 1976 production. Steel profits were higher at the Tracy plant of Atlas Steels and in the metal service centres of Atlas Alloys. There were marked improvements in operating efficiencies in 1977 at the Tracy plant where the 1976 results had been depressed by a nine week strike and weak markets; the metal service centres recorded higher sales volumes and modest increases in margins in 1977. Coppermolybdenum profits were lower than in 1976 primarily because of lower copper prices; expenses were higher as a result of escalation in operating costs and increased waste removal in the open pit mining operation. Income and mining tax provisions were \$5,769,000 higher in 1977 because of higher profits in uranium and steel. Minority interests in net earnings of a subsidiary declined by

\$2,775,000 in 1977 due to lower earnings at Lornex, 67.2% of which was owned by Rio Algom.

Earnings before taxes and minority interests increased by \$22,042,000 in 1978. Operating profits increased by \$24,740,000, comprised of increases of \$15,038,000 in steel and \$10,787,000 in copper-molybdenum and a decrease of \$1,085,000 in uranium profits. Steel profits were higher at both the Welland and Tracy plants of Atlas Steels and in the metal service centres of Atlas Alloys. Welland plant earnings were adversely affected in 1977 and the earlier part of 1978 by delays in attaining production and cost objectives for the new melt shop; these were achieved in the latter part of 1978. Significant improvements in yields and general operating efficiency were accomplished at the Tracy plant. The Atlas Alloys service centres were able to maintain operating margins and achieve significant increases in sales and earnings despite continuing strong competition. Coppermolybdenum profits were higher than in 1977 due mainly to higher copper and molybdenum prices; most of the increase in copper prices was a result of the decline in value of the Canadian dollar in relation to the U.S. dollar. Uranium profits declined slightly in spite of increased production; the 1977 uranium earnings had been favorably affected by price renegotiations applicable in part to 1976. Also, operating costs increased in 1978, including the higher depreciation and amortization charges relating to the expanded Quirke operation which came on stream in April, 1978. Income and mining taxes increased by only \$1,013,000 in spite of the \$22 million increase in pre-tax earnings. The decrease in the effective tax rate is mainly attributable to reduced mining taxes on lower uranium taxable earnings and increased investment tax credits associated with major capital expenditures for expansion of uranium operations. Minority interests in net earnings of a subsidiary were \$2,027,000 higher in 1978 due to increased earnings at Lornex, 68.1% of which is owned by Rio Algom.

As noted elsewhere in this report the 1979 earnings are not fully comparable with those of 1978 because the accounts of the Corporation's two United States subsidiaries have not been consolidated with those of the Corporation after January 1, 1979. In spite of that earnings before taxes and minority interests increased by \$73,618,000 in 1979 over the previous year. Operating profits were \$79,394,000 higher this year, comprised of an increase of \$94,228,000 in copper-molybdenum profits and decreases of \$13,757,000 and \$1,077,000 in uranium and steel profits, respectively. Pre-tax profits at the Lornex copper-molybdenum mine increased substantially due primarily to improved prices for molybdenum and copper, including higher foreign exchange gains. The decline in uranium earnings was principally due to increased costs including higher amortization charges and the initial operating costs of the newly developed Panel

mine and mill which began commercial production in November, 1979. The slight decline in steel profits occurred primarily because of a nine-month strike at the Tracy plant of Atlas Steels. The losses sustained at Tracy were largely offset by increases in the earnings of the Welland plant of Atlas Steels and of the metal service centre operations of Atlas Alloys. Welland plant produced additional tonnage of steel in 1979 and selling prices were moderately higher; earnings were also improved by operation of the new melt shop for the full year 1979 at a high level of efficiency. Sales of Atlas Alloys increased over the previous year and costs continued to be stringently controlled; all service centre units recorded increased earnings in 1979. Exploration expenditures increased by \$3,112,000 in 1979 due to the expanded search for new properties. Income and mining taxes were \$45,889,000 higher in 1979 than in the previous year because of higher pre-tax earnings and a substantial increase in the effective tax rate caused primarily by a change in the proportions of earnings among operations taxed at different rates. Minority interests in net earnings of a subsidiary increased by \$13,785,000 in 1979 due to increased earnings at Lornex, 68.1% of which is owned by Rio Algom.

# **Rio Algom Limited**

120 Adelaide Street West, Toronto, Canada M5H 1W5

## Directors

\*G. R. Albino President and Chief Operating Officer of the Corporation, Toronto

\*R. D. Armstrong Chairman and Chief Executive Officer of the Corporation, Toronto

<sup>†</sup>J. Ian Crookston Financial Consultant, Toronto

\*†J. G. Edison, QC Counsel to Aird & Berlis, Barristers & Solicitors, Toronto

A. G. Frame Joint Deputy Chairman and Chief Executive, The Rio Tinto-Zinc Corporation Limited (1), London, England

## Officers

Executive R. D. Armstrong Chairman and Chief Executive Officer

G. R. Albino President and Chief Operating Officer

**Corporate** R. G. Connochie Vice-President and Executive Assistant to the President

J. G. Littlejohn General Counsel

A. F. Lowell Vice-President, Minerals Marketing

H. A. Pakrul Vice-President, Controller \*†G. C. Gray Chairman and Chief Executive Officer, A. E. LePage Limited, Realtors, Toronto

Sam Harris Senior Partner, Fried, Frank, Harris, Shriver & Jacobson, Attorneys-at-Law, New York, U.S.A.

R. S. Hurlbut Chairman and President, General Foods Limited, manufacturer of packaged grocery products, Toronto

D. S. R. Leighton Director, The Banff Centre, Banff, Alberta

W. Moodie Consultant, Sutton West, Ontario

J. Herbert Smith (2) Consulting Engineer, Toronto

A. C. Turner Vice-President, Secretary

J. Van Netten Vice-President, Treasurer

Mining E. W. Cheeseman Vice-President, Underground Mining Operations

P. A. Carloss Vice-President, General Manager, Elliot Lake

P. M. Kavanagh Vice-President, Exploration

J. E. Moyle Vice-President, Mining Engineering

Atlas Steels A. V. Orr Vice-President, General Manager

H. L. Brien Vice-President, Engineering \*Sir Mark Turner Chairman, The Rio Tinto-Zinc Corporation Limited (1), London, England

\*R. J. Turner President and Chief Executive Officer, Genstar Limited, a diversified Canadian company, Montreal

R. W. Wright, CBE (2) Director, The Rio Tinto-Zinc Corporation Limited (1), London, England

\*Members of the Executive Committee

<sup>†</sup>Members of the Audit Committee

 The parent of an international group of mining and industrial companies

(2) Not standing for re-election

C. E. Ohlson Vice-President, Sales and Marketing

G. L. Sandler Vice-President, Finance

Atlas Alloys W. D. Dobbin Vice-President, General Manager

K. Collyer Vice-President, Canadian Operations

J. B. Dunn Vice-President, Controller

W. I. Pollock Vice-President, Marketing

## **Rio Algom Operations**

## Miscellaneous Corporate Information

## Canada

Mining Head Office: Toronto, Ontario Uranium Operations: Panel, Quirke, and Stanleigh mines at Elliot Lake, Ontario Copper Operations: Lornex Mining Corporation Ltd., Vancouver, B.C. Lornex mine at Logan Lake, B.C.

### Exploration

Rio Tinto Canadian Exploration Limited (Riocanex) Head Office: Toronto, Ontario Eastern Canada Office: Toronto, Ontario Western Canada Office: Vancouver, B.C. Branch and Field Offices at Fredericton, St. John's, Quebec City, Thunder Bay and Whitehorse

### Steel

Atlas Steels Head Office: Welland, Ontario Plants at Welland, Ontario and Tracy, Quebec

### **Metals Distribution**

Atlas Alloys Head Office: Etobicoke, Ontario Service Centres at Etobicoke, Montreal, Windsor, Sarnia, Sudbury, Thunder Bay, Winnipeg, Saskatoon, Edmonton, Calgary, Vancouver and Prince George

## **United States**

### Mining

Rio Algom Corporation Registered Office: Wilmington, Delaware Uranium Operations: Lisbon mine at Moab, Utah

### **Metals Distribution**

Atlas Alloys Inc. Head Office: Valley View, Ohio Service Centres at Valley View, Ohio, Detroit, Michigan, K. C. Glader Co., Chicago, Illinois

## Overseas

### **Metals Distribution**

Atlas Alloys Limited, Dunstable, Beds., England Atlas Steels (Australia) Pty. Limited, Melbourne, Australia Aceromex-Atlas S.A., Mexico City, Mexico

Agents or Distributors in other countries

### **Head Office**

120 Adelaide Street West, Toronto, Ontario, Canada M5H 1W5

### Auditors

Coopers & Lybrand, Chartered Accountants, Toronto

## **Registrars and Transfer Agents**

### **Common Shares**

Canada Permanent Trust Company, Toronto, Montreal, Winnipeg, Regina, Calgary and Vancouver

The Canadian Bank of Commerce Trust Company, New York

### **First and Second Preference Shares**

Canada Permanent Trust Company, Toronto, Montreal, Halifax, Winnipeg, and Vancouver

## **Shares Listed**

### **Common Shares**

Toronto Stock Exchange, Toronto Montreal Stock Exchange, Montreal American Stock Exchange, New York

### **First and Second Preference Shares**

Toronto Stock Exchange, Toronto Montreal Stock Exchange, Montreal

## Form 10-K Annual Report

Rio Algom's Form 10-K annual report for 1979 to the United States Securities and Exchange Commission will be available to shareholders on written request to the Secretary of the Corporation.

