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**ANNUAL MEETING OF SHAREHOLDERS**  
MONDAY, APRIL 27, 1981  
2:30 P.M. (TORONTO TIME)  
COMMERCE HALL  
CONCOURSE LEVEL, COMMERCE COURT  
TORONTO, ONTARIO



## SUMMARY OF CONSOLIDATED RESULTS

	1980	1979	1978
<b>Financial:</b>			
Earnings for the year before extraordinary item	\$ 71,422,000	\$ 110,561,000	\$ 5,818,000
— per common share	\$ 13.04	\$ 21.01	\$ 0.22
Earnings for the year	\$ 109,122,000	\$ 130,561,000	\$ 5,818,000
— per common share	\$ 20.61	\$ 25.03	\$ 0.22
Revenues	\$ 757,815,000	\$ 789,418,000	\$ 508,211,000
Dividends per common share	\$ 3.50	\$ 3.00	
Assets	\$ 1,159,094,000	\$ 1,069,371,000	\$ 868,525,000
Working capital	\$ 362,119,000	\$ 380,883,000	\$ 254,784,000
Current ratio	2.94:1	3.45:1	3.61:1
Long-term debt	\$ 285,801,000	\$ 287,170,000	\$ 295,003,000
Preference shares		\$ 75,000,000	\$ 75,000,000
*Debt/equity ratio	38:62	38:62	44:56
Common shareholder's equity per common share	\$ 101.36	\$ 84.40	\$ 62.57
Return on total assets less current liabilities	9.1%	16.3%	1.7%

### Metal sales prices, including agency materials (average for year — U.S. currency):

Refined nickel (per pound)	\$ 3.25	\$ 2.31	\$ 1.94
Ferronickel (per pound)	\$ 3.18	\$ 2.41	\$ 1.82
Copper (per pound)	\$ 0.94	\$ 0.93	\$ 0.64
Cobalt (per pound)	\$ 24.36	\$ 29.12	\$ 12.25
**Gold (per ounce)	\$611.03	\$367.61	\$205.55
**Silver (per ounce)	\$ 16.00	\$ 16.64	\$ 5.77
Platinum (per ounce)	\$678.55	\$421.47	\$254.41

### Metal sales, including agency materials:

Nickel and ferronickel in all forms (pounds)	94,338,000	137,277,000	118,361,000
Copper (refined and in concentrate) (pounds)	144,323,000	149,192,000	140,647,000
Cobalt (pounds)	1,777,000	1,502,000	1,255,000
**Gold (ounces)	87,000	129,000	161,000
**Silver (ounces)	3,791,000	5,150,000	5,612,000
Platinum (ounces)	10,000	16,000	9,000

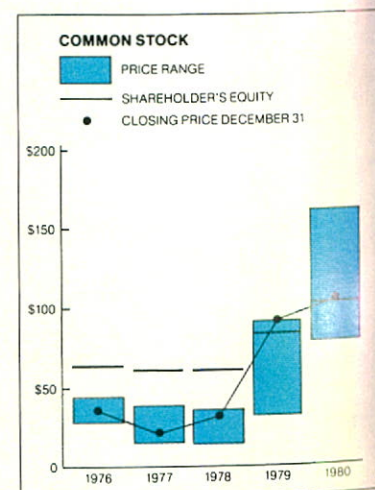
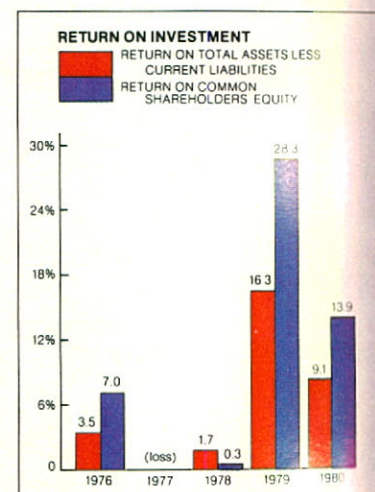
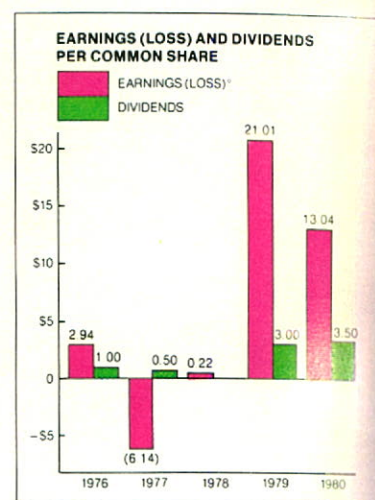
\*Equity includes preference shares. \*\*Includes companies accounted for on an equity basis.

Falconbridge recorded the second highest consolidated earnings in its history.

Kiena Gold Mines Limited, 68.3% owned by the Company, announced a decision to place its Quebec gold property in production.

As a result of a decline in the demand for ferronickel Falconbridge Dominicana, C. por A., 65.7% owned by the Company, shut down its production operations from the end of July to the end of December, 1980 and had to borrow additional funds to meet its cash shortfall.

The Company's \$75,000,000 preference shares were redeemed on December 30, 1980.





## Board of Directors

- \*H. T. BERRY  
President and Chief Executive Officer
- J. B. CONNALLY  
Senior Partner, law firm of Vinson & Elkins
- MARSH A. COOPER  
President, M. A. Cooper Consultants Inc.
- †R. E. HARRISON  
Chairman and Chief Executive Officer,  
Canadian Imperial Bank of Commerce
- ROBERT HEWITT  
Chairman, Hewitt Equipment Limited
- †H. R. HIRSCH  
Senior Vice-President,  
The Superior Oil Company
- \*W. F. JAMES  
Consulting Geologist
- \*H. B. KECK  
Chairman and Chief Executive Officer,  
The Superior Oil Company
- †H. B. KECK, JR.  
Executive Vice-President and  
Chief Operating Officer,  
Maritime Bank of California
- †D. E. LEWIS, Q.C.  
Barrister and Solicitor
- \*G. P. MITCHELL  
President, Kiena Gold Mines Limited
- \*J. E. REID  
President and Chief Operating Officer,  
The Superior Oil Company
- E. WIGSTOL  
Managing Director,  
Falconbridge Nikkelverk Aktieselskap

\*Member of the Executive Committee

†Member of the Audit Committee

## Officers and Corporate Management

- J. E. REID  
Chairman of the Board
- H. T. BERRY  
President and Chief Executive Officer
- I. H. KEITH  
Vice-President Ferronickel and Industrial  
Minerals Divisions and African Operations
- L. C. KILBURN  
Vice-President Exploration, Development and  
Western Canadian Operations
- J. D. KRANE  
Vice-President Corporate Affairs and Secretary
- G. T. ROBERTSON  
Vice-President Personnel
- A. G. SLADE  
Vice-President Canadian Nickel and  
Copper Operations
- M. O. PEARCE  
Acting Vice-President Marketing
- J. L. MATTHEWS, Q.C.  
General Counsel and Assistant Secretary
- A. M. CLARKE  
Assistant Vice-President Development
- H. T. EVANS  
Assistant Vice-President Ferronickel Division
- C. M. H. JENNINGS  
Assistant Vice-President Exploration
- A. R. PASIEKA  
Assistant Vice-President Mining
- H. L. HICKEY  
Director Public Relations
- F. G. T. PICKARD  
Director Metallurgy and Engineering
- P. G. THORNHILL  
Director Metallurgical Research
- PETER ZAHARUK  
Director General Engineering
- J. M. DONOVAN  
Controller
- N. H. WITHERELL  
Treasurer



ELECTRONICKEL



FALCONBRIDGE



## Report of the Directors to the Shareholders

### Highlights of 1980

In 1980 the Company recorded the second highest consolidated earnings in its history. This performance was very gratifying in view of the severe impact of inflation on operating costs, increased expenditures on exploration and development, and a decline in sales. An unexpected downturn in metal markets began to manifest itself in April and continued throughout the balance of the year.

Consolidated earnings were \$109,122,000 or \$20.61 per common share (after providing for preference share dividends), including an extraordinary credit of \$37,700,000 or \$7.57 per common share resulting from the acceptance of a public offer by The Superior Oil Company to purchase all of the capital stock of Canadian Superior Oil Ltd. In 1979, consolidated earnings were \$130,561,000 or \$25.03 per common share, including an extraordinary credit of \$20,000,000 or \$4.02 per common share due to a deferred tax credit arising from prior years' losses.

The strong improvement in nickel markets that helped the Company achieve record consolidated earnings in 1979 was not sustained in 1980. The sharp recession in the United States, which began in the second quarter, and declining economic activity in Europe and Japan, resulted in a significant decline in nickel sales from the 1979 level. Moreover, while nickel shipments were decreasing, the production of nickel within the non-Communist world was increasing by about 15 per cent. As a result, producer inventories of nickel rose to approximately 400,000,000 pounds at year end. With no significant improvement in the economy anticipated before the second half of 1981, nickel demand is expected to remain at about current levels and then increase in the latter part of the year.

Shipments of nickel by the Company decreased substantially during 1980. Inventory of nickel in all forms increased by year end to 45,833,000 pounds from 27,217,000 pounds at the end of 1979.

At Sudbury Operations, nickel production was increased to about 70 per cent of capacity. The Falconbridge, East, Lockerby, Onaping and Strathcona Mines were in operation throughout the year, and North Mine was re-activated during the third quarter. Development continued at the Fraser Mine, with production scheduled to begin in 1981. A new circuit was installed in the Strathcona Mill for the production of a high-grade copper concentrate beginning in December, 1980 and an agreement was concluded for the treatment of the concentrate and the refining of the copper in Ontario. The second fluid bed roaster-electric furnace in the smelter was put on line in January, 1980. There were 3,886 employees at year end, an increase of 244 over the 1979 level.

The earnings of the Integrated Nickel Operations, \$57,372,000 in 1980, were 8 per cent lower than in 1979. This reflected a 36 per cent lower volume of nickel sales and an increase in costs, partially offset by the impact of a higher average nickel selling price and an increase in the volume of copper sales.

Falconbridge Dominicana, C. por A. (Falconbridge Dominicana) incurred a loss of RD\$8,578,000 in 1980 compared with earnings of RD\$8,572,000 in 1979 (RD\$1.00 equals US\$1.00). Costs were sharply higher, especially for oil, and demand for ferronickel weakened dramatically late in the second quarter of the year. In order to maintain inventories at reasonable levels it was necessary to suspend production operations from August 1 to December 31, 1980. The ongoing costs during the five-month shutdown of RD\$13,024,000 were expensed. Production was resumed in January, 1981, by which time inventories of ferronickel were below normal operating levels. Total sales of ferronickel to the Company in 1980 were 36,491,000 pounds of contained nickel compared with 54,130,000 pounds in 1979. As a result of reduced shipments of ferronickel, Falconbridge Dominicana required additional funding during 1980 in the amount of U.S. \$14,223,000. Pursuant to the Falconbridge Dominicana financing agreements, such funding was provided by the Company and the other project sponsor. Further financial support from these sources will be required in 1981. The financing agreements require the Company to provide 60 per cent of the funds required by Falconbridge Dominicana which this subsidiary is not able to generate from its operations.

Earnings of \$30,333,000 by Corporation Falconbridge Copper (formerly Falconbridge Copper Limited) in 1980 were 35 per cent lower than in 1979. The main factors in this decrease were lower metal production, as a result of the transition to lower grade ore at Corbet Mine compared with that at Millenbach Mine, the closure of the Sturgeon Lake Mine and greater operating and exploration expenditures. All of these factors were partly offset by higher prices for gold and copper. Production at the Corbet Mine began in January, 1980. The Millenbach Mine, which began production in 1973, will be closed in 1981 due to the exhaustion of ore reserves. After mining 1,894,000 tons during 1980, the corporation's proven and probable ore reserves decreased by 1,840,000 tons to 6,725,000 tons at year end. Early in 1981, a drill intersection of significant ore grade was encountered three miles west of the former Norbec Mine on the Ansil property, which was acquired several years ago. Further drilling is required to determine the extent and grade of this discovery.



# FALCONBRIDGE NICKEL MINES LIMITED



Consolidated sales revenues of Indusmin Limited in 1980 rose to a record level. While earnings of \$3,521,000 were lower than the record established in 1979, they were the second highest in the company's history. The lower earnings in 1980 resulted from pressures on pricing due to excess capacity and strong competition.

Revenue from metal shipments of United Keno Hill Mines Limited decreased substantially in 1980 compared with 1979. Earnings were \$7,679,000 in 1980 compared with \$20,726,000 in the previous year, reflecting lower production as a result of a legal strike of unionized employees at the Elsa Mining Division which began in September, 1980. As of March 13, 1981 the strike was still in effect and all operations remained shut down. Ore reserves at the Elsa Mining Division have been increased by 149,000 tons. In addition, the Venus gold and silver mine is being developed for production, scheduled to commence in the second half of 1981.

During 1980, the Board of Directors of Kiena Gold Mines Limited approved a production decision for the Kiena property at a capital cost of approximately \$25,000,000. Production from this mine, located near Val d'Or, Quebec, is planned to begin during the latter part of 1981. Proven and probable ore reserves are estimated at 2,500,000 tons averaging 0.23 ounce of gold per ton.

## Marketing Summary

Sales of refined nickel and ferronickel in all forms by Falconbridge during 1980, including nickel refined and sold on a commission basis, totalled 94,338,000 pounds compared with 137,277,000 pounds in 1979. This significant decrease in shipments reflected the sharp recession in the United States, beginning in the second quarter, and the subsequent decline in economic activity in Europe and Japan during the second half of the year.

The posted producer price for melting grade nickel was increased at the end of February, 1980 to U.S. \$3.45 per pound from U.S. \$3.20 per pound. The average selling price per pound received by the Company for refined nickel products in 1980 was U.S. \$3.25 compared with U.S. \$2.31 in 1979. The average price per pound received for ferronickel products in 1980 was U.S. \$3.18 compared with U.S. \$2.41 in 1979.

In November, 1980, a temporary six per cent discount on all nickel orders placed for delivery through the first quarter of 1981 was adopted by the major producers. Although this

discount was rescinded effective February 28, 1981, it continued to apply on orders received before that date for delivery before June 30, 1981.

The current low level of nickel consumption in most of the major market sectors is expected to continue throughout the first six months of 1981. World economic conditions are expected to improve during the second half of 1981 and should lead to increased activity in the automotive, appliance and energy sectors, resulting in higher levels of nickel consumption during the latter part of the year. Consumer nickel inventories are expected to increase and to approach normal levels during this period.

In the longer term, it is anticipated that improved nickel demand will require start-up of the industry's stand-by capacity and, eventually, the installation of new capacity.

The London Metal Exchange wirebar cash settlement price for copper in 1980 averaged U.S. 99 cents per pound, up from U.S. 90 cents per pound in 1979. Copper prices rose sharply in January and February, 1980 but weakened during the remainder of the year as falling demand reflected reduced economic activity. Prices are expected to weaken as the industry faces a moderate supply surplus.

World demand for cobalt was exceeded by production during 1980, resulting in a substantial build-up of producer inventories by year end. The published producer price for cobalt remained at the U.S. \$25.00 per pound level throughout the year. The average selling price per pound received by the Company for cobalt in 1980 was U.S. \$24.36, compared with U.S. \$29.12 in 1979.

Other metals produced and sold by the Company include gold, silver and platinum group metals.

Company sales of metals from all sources were as follows:

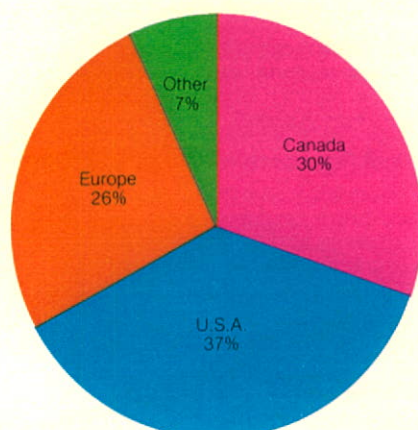
	1980	1979
	(Pounds)	
Refined Nickel (in all forms)	59,771,000*	89,649,000*
Ferronickel (in all forms)	34,567,000	47,628,000
Copper	57,352,000*	44,733,000*
Cobalt	1,777,000*	1,502,000*

\*Includes metal refined and sold as agent

Sales of copper by subsidiary companies in 1980 amounted to 86,971,000 pounds, 17 per cent lower than the 104,459,000 pounds sold in 1979. Sales of zinc concentrate totalled 50,984,000 pounds in 1980, 44 per cent lower than 1979 sales of 91,710,000 pounds.



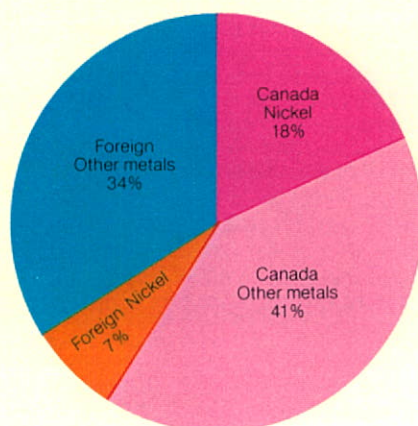
**CONSOLIDATED REVENUES  
BY GEOGRAPHICAL AREA IN 1980**



**CONSOLIDATED REVENUES  
BY GEOGRAPHICAL AREA**

	1980		1979		1978	
	\$ millions	%	\$ millions	%	\$ millions	%
U.S.A.	\$282.3	37%	\$249.1	32%	\$166.4	33%
Europe	197.6	26	222.7	28	194.6	38
Other	51.5	7	67.3	8	54.1	11
Total foreign	531.4	70	539.1	68	415.1	82
Canada	226.4	30	250.3	32	93.1	18
World total	\$757.8	100%	\$789.4	100%	\$508.2	100%

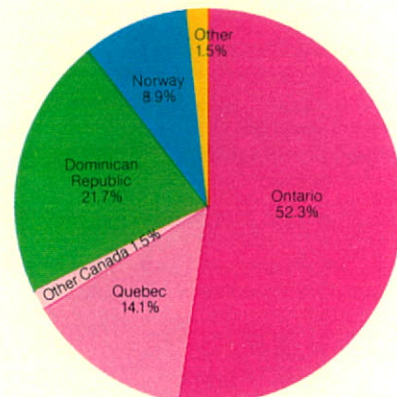
**CONSOLIDATED EXPLORATION EXPENDITURES  
BY GEOGRAPHICAL AREA IN 1980**



**CONSOLIDATED EXPLORATION EXPENDITURES  
BY GEOGRAPHICAL AREA**

	1980		1979		1978	
	\$ millions	%	\$ millions	%	\$ millions	%
Canada - Nickel	\$ 5.1	18%	\$ 2.4	17%	\$ 1.2	16%
- Other metals	11.6	41	6.1	43	3.9	51
- Total	16.7	59	8.5	60	5.1	67
Foreign - Nickel	2.1	7	1.4	10	0.6	7
- Other metals	9.5	34	4.4	30	2.0	26
- Total	11.6	41	5.8	40	2.6	33
World - Nickel	7.2	25	3.8	27	1.8	23
- Other metals	21.1	75	10.5	73	5.9	77
- Total	\$28.3	100%	\$14.3	100%	\$7.7	100%

**THE GEOGRAPHICAL LOCATION OF  
PROPERTY, PLANT AND EQUIPMENT  
AT DECEMBER 31, 1980**



**Exploration**

Consolidated exploration expenditures by Falconbridge were \$28,284,000 in 1980 compared with \$14,297,000 in 1979 and \$7,662,000 in 1978.

The pace of exploration on the Company's properties in the Sudbury area was increased during 1980. At the Strathcona Mine, a new zone of high-grade copper ore was discovered and further drilling on this zone will be done in 1981 to confirm and detail the reserves. At the Craig orebody, drilling has increased nickel ore reserves substantially. A high level of exploration will be sustained during 1981 to maintain a strong ore reserve position at Sudbury.

Regional exploration programs in Canada are directed from offices in Vancouver, Winnipeg, Sudbury, Timmins, Quebec City and St. John's. In the Yukon Territory, exploration work is undertaken through a joint venture managed by United Keno Hill Mines Limited.

In Gand Township, Quebec, a gold deposit on property held under option from Opawica Explorations Inc. has been outlined by surface diamond drilling and preparations are being made to explore this mineralized zone from underground. This work is being undertaken through a joint venture (in which the Company holds 51 per cent) with Corporation Falconbridge Copper.

Exploration efforts by Falconbridge in southern Africa are concentrated in the Republic of Botswana, where a wholly-owned subsidiary of the Company manages a project in which it has a 50 per cent participation. The other project partner is The Superior Oil Company. Evaluation of kimberlite pipes, which are an important source of diamonds, continued during the year on properties held under Exclusive Prospecting Orders. A small plant set up to determine the quantity and quality of diamonds is being used to evaluate large samples obtained from several of the





kimberlite pipes. Drilling of several interesting base metal deposits in northeastern Botswana continued during 1980. Metallurgical tests are being undertaken on these deposits and economic studies are in progress.

Development for production commenced on the Golden Kopje gold deposit, located about 100 kilometres northwest of Salisbury, Zimbabwe. Ore reserves are estimated at 964,000 tons averaging 0.174 ounce of gold per ton. Plans call for production by late 1982 at a rate of 66,000 tons per year.

The Company holds a 49 per cent interest in a diamond exploration project in the United States which is managed by The Superior Oil Company.

In Chile, the Company has a minority position in a project to evaluate a porphyry copper prospect at Quebrada Blanca, 340 kilometres northeast of Antofagasta. Underground drifting and raising was completed during 1980 to check drill hole estimates of grade and to provide a bulk sample. Metallurgical testing and a preliminary feasibility study have been completed.

Falconbridge's rights with respect to nickel laterite deposits in Zambales Province, Republic of the Philippines, have been extended for a period of three years to May, 1983. Additional field exploration and metallurgical testing will be carried out during this period. In Ivory Coast, Falconbridge is exploring a nickel laterite deposit under the terms of an agreement with SODEMI, a Government-owned mineral development company.

## Mining Research

Mining research and development expenditures amounted to \$2,161,000 in 1980 compared with \$610,000 in 1979 and \$356,000 in 1978.

Continuing attention is being directed to the study of rock mechanics to produce more stable underground conditions, and to develop improved mining methods. Company personnel have been able to improve computer evaluation techniques for mine planning and ground control. The Hydraulic Hoisting Research Project, which was suspended in 1976, was re-activated in late 1979, shortly after the re-opening of the Onaping Mine. The expenditures for this project were \$1,176,000 in 1980 compared with \$50,000 in 1979.

Falconbridge has continued its support of the Mining Industry Research Organization of Canada (MIROC) which contracts environmental research projects. MIROC's activities are directed specifically to

improvement in the safety, health and comfort of underground miners.

## Metallurgical Research

In 1980, expenditures on metallurgical research and development amounted to \$4,475,000 compared with \$3,350,000 in 1979 and \$2,730,000 in 1978. One major project was related to the development of a hydrometallurgical method of treating nickeliferous laterites with minimal fuel consumption, and considerable progress was made towards this objective during 1980. Projects related to nickel refining resulted in improved methods of treating secondary materials containing cobalt, and in increased efficiencies in the extraction of precious metals from intermediates and by-products.

Research related to exploration was directed largely to the streamlining of procedures for evaluating the increased number of kimberlite drill cores and samples processed during the year.

Encouraging progress was made in the development of nickel products for energy storage, test quantities of which have been favourably received by the battery manufacturing industry.

The Company's metallurgists have continued to make important contributions to various technical developments, particularly those related to foundry practices. Included in this work are developments related to welding methods on high nickel alloys, foundry alloys having improved resistance to wear, various classes of high temperature nickel alloy castings, and alloys resistant to carburization and failure due to thermal cycling.

An expansion of the Falconbridge Metallurgical Laboratories at Richmond Hill, Ontario, was undertaken in the second half of 1980. The extension was ready for occupancy by year end.

## Environmental Control

In January, 1980 the second fluid bed roaster-electric furnace line was brought into operation at the Falconbridge smelter. This furnace is part of the Smelter Environmental Improvement Program which has enabled the Company to provide a modern, acceptable working environment in its smelter. It has also enabled the Company to continue its compliance with the Ontario Government's timetable for sulphur dioxide pollution abatement in the smelter operation. Over a period of 30 years the proportion of the sulphur in the ore treated which is emitted from the Falconbridge smelter as sulphur dioxide has been reduced from 82 per cent to 18 per cent.



The Ontario Government's existing Control Order requires the Company's Sudbury Operations to submit a study, with preliminary plans, outlining methods by which sulphur dioxide emissions may be further reduced to reach the Ontario standard for ground concentrations of sulphur dioxide. The report, which was submitted in January, 1981, indicated that further investigation by the Company is required to provide a sulphur dioxide emission control system which will be acceptable from the standpoints of technology, occupational health and safety, and economics.

In response to public concern in Canada regarding acid rain, an Ontario-Canada Task Force is studying the air pollution abatement options available to the Sudbury area nickel producers. The study is directed to the environmental, economic and social consequences of these options as a guide in the formulation of government policy. Pending the results of further investigations, discussions with the Ontario Ministry of the Environment, and the report of this Task Force, it is not possible to estimate the cost of compliance or to establish a timetable for expenditures.

### Energy Conservation

Energy conservation efforts continued to receive high priority within the Falconbridge Group of companies during 1980. Comprehensive studies of energy conservation methods and alternate sources of energy are presently being evaluated.

### Capitalization

At the Annual and a General Meeting held in Toronto on April 15, 1980 the shareholders approved the reclassification of the Class A and Class B convertible shares as common shares, on a basis of one common share for each Class A share or Class B share. The shareholders also approved an increase in the Company's authorized capital to 10,000,000 Preference Shares with a par value of \$25.00 each, issuable in series, and 25,000,000 common shares without par value.

On December 30, 1980 the Company redeemed and cancelled its 3,000,000 outstanding Preference Shares at their par value of \$75,000,000. These shares had been issued in 1977 to finance the high nickel inventories and the heavy capital expenditures on the Smelter Environmental Improvement Program, and to provide additional working capital. Since that time the cash position of the Company has improved significantly, enabling the redemption of these Preference Shares, which were a relatively expensive form of financing. As a result, the number of authorized Preference Shares has been reduced from 10,000,000 shares to

7,000,000 shares, none of which has been issued.

The Company's term line of credit with a Canadian bank has been increased from \$80,000,000 to \$180,000,000 and extended from August 31, 1982 to December 31, 1986. The amount drawn down under the line of credit remains unchanged at \$75,900,000.

### Shareholders

At December 31, 1980, there were 5,908 shareholders of whom 4,230 were of Canadian registry holding 4,009,743 common shares. This represents 80 per cent of the 5,024,755 common shares outstanding after deducting 45,483 shares held by subsidiaries. At the end of 1979 there were 7,362 shareholders of the outstanding common shares, of whom 5,505 were of Canadian registry holding 4,436,284 common shares representing 88 per cent ownership.

### Dividends

Dividends amounting to \$3.50 per common share were paid during 1980, compared with \$3.00 per share in 1979. In addition, dividends aggregating \$6,475,000 were paid on the Preference Shares compared with \$5,911,000 in 1979.

### Organization

On June 2, 1980 Mr. Marsh A. Cooper retired as President and Chief Executive Officer of the Company. Under his vigorous leadership for 12 years the Falconbridge organization broadened its operating horizons and enhanced its stature within the international mining community. Mr. Cooper's colleagues on the Board gratefully acknowledge his substantial contribution to the Company and its widespread interests. Mr. Cooper, who has re-entered the geological consulting field, continues to serve the Company as a director and as a consultant. He was succeeded as President and Chief Executive Officer by Mr. D. Broward Craig, who resigned from the Company on October 21, 1980. On that date, Mr. H. T. Berry, Senior Vice-President Metallurgy and Research and a director of the Company, was appointed President and Chief Executive Officer.

On June 2, 1980 Mr. O. D. Cowan resigned as a director after 23 years of valuable service to the Company. His fellow directors record their appreciation for his fine contribution to the Falconbridge organization.

On October 21, 1980 Mr. John B. Connolly, a former director who had resigned in May, 1979 to seek political office in the United States, was re-appointed to the Board.

On June 2, 1980 Mr. G. P. Mitchell resigned his position as Senior Vice-President Exploration and Development. He continues to



FERROCONES



FALCONBRIDGE



serve the Company as a director and as President of a subsidiary company, Kiena Gold Mines Limited.

On December 31, 1980 Mr. W. G. Dahl resigned as Senior Vice-President marketing. Mr. Dahl had served the Company as an officer since 1964 and as a director from 1968 to April, 1980.

Mr. C. F. H. Carson, Q.C., a director of the Company for 21 years and Director Emeritus since 1977, died on October 22, 1980. The members of the Board have conveyed their deepest sympathy to his wife and family.

During 1980 Mr. I. H. Keith was appointed Vice-President Ferronickel and Industrial Minerals Divisions and African Operations; Dr. L. C. Kilburn was appointed Vice-President Exploration, Development and Western Canadian Operations; Mr. A. G. Slade was appointed Vice-President Canadian Nickel and Copper Operations; Mr. M. O. Pearce was appointed Acting Vice-President Marketing; and Mr. F. G. T. Pickard was appointed Director Metallurgy and Engineering. All of these officers have been employees of the Company for a number of years.

### Personnel

In 1978 the Company announced a long-range personnel planning strategy, emphasizing the need to select and develop high calibre people at all levels of the organization. Good progress was made towards this goal during 1980.

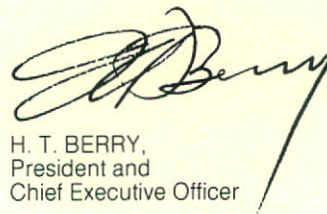
As part of the emphasis on employee development, plans were announced for the relocation of the training facilities at Sudbury Operations to a new centre in downtown Sudbury. The larger facility, which will be in operation this spring, should greatly assist in meeting the needs for skilled trades training, supervisory development, safety instruction and other programs. The total number of employees in the Falconbridge organization increased to 15,051 in 1980 compared with 14,196 employees a year earlier.

During 1980 Falconbridge continued to emphasize its comprehensive program of employee safety. Through its Sudbury Operations, the Company made a comprehensive submission to the Joint Federal and Provincial Inquiry into Safety in Mines and Mining Plants in Ontario.

### Appreciation

The directors of the Company express their deep appreciation for the commendable performance of management and employees at all operating locations. Their combined efforts have contributed greatly to the Company's progress during 1980. The continuing support of shareholders, customers, contractors and suppliers is also acknowledged with gratitude.

On behalf of the Board of Directors:

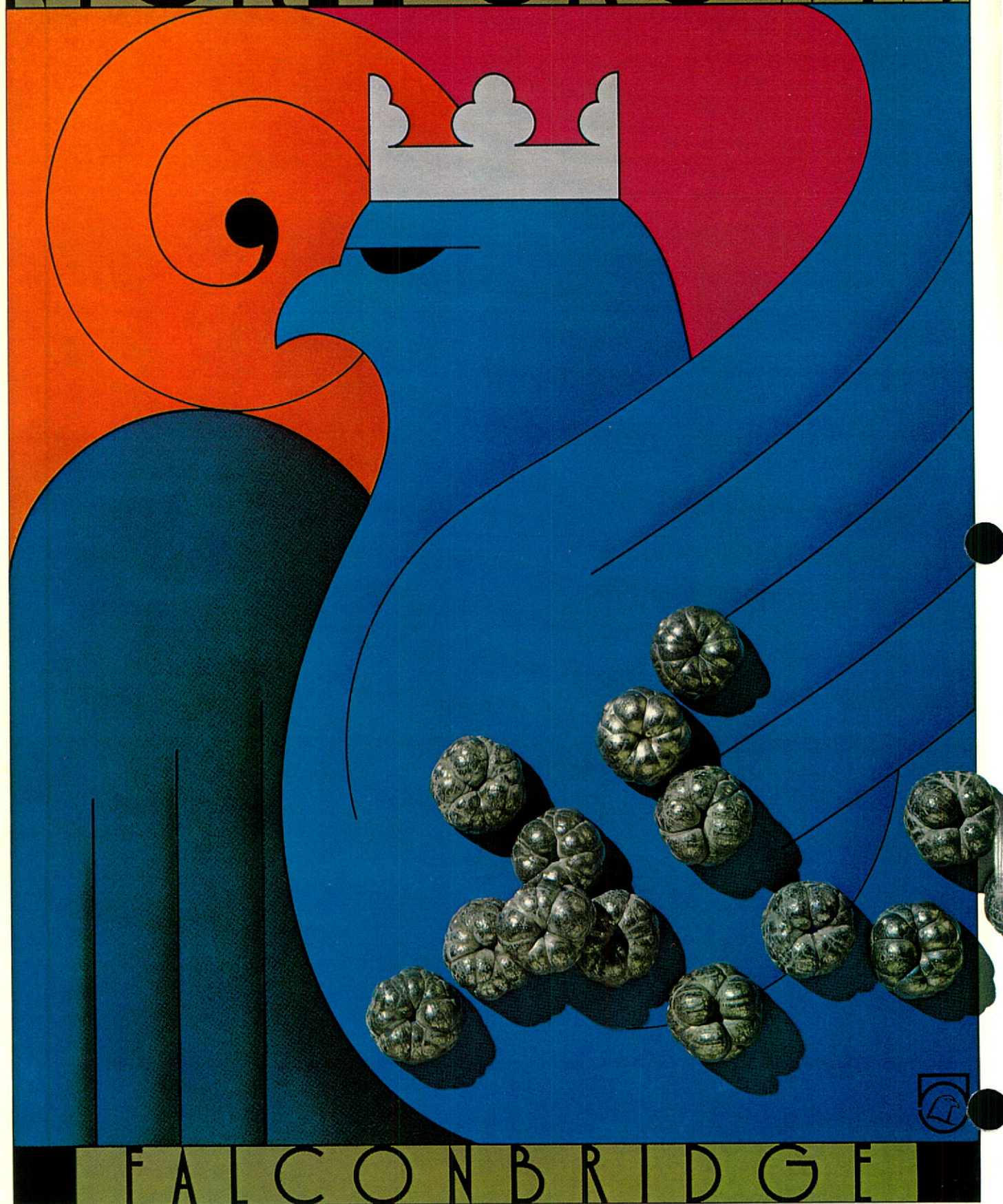


H. T. BERRY,  
President and  
Chief Executive Officer

Toronto, Ontario  
March 13, 1981



NICKEL CROWNS.





# FALCONBRIDGE NICKEL MINES LIMITED



## FINANCIAL REVIEW

### MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

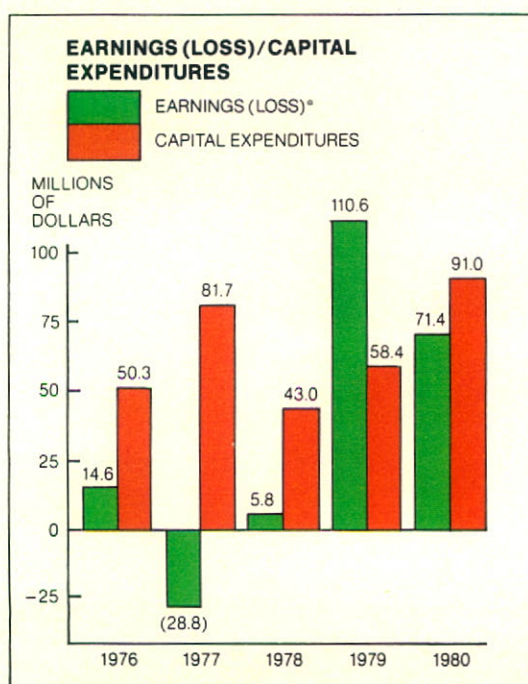
#### ANALYSIS OF FINANCIAL CONDITION:

##### Liquidity —

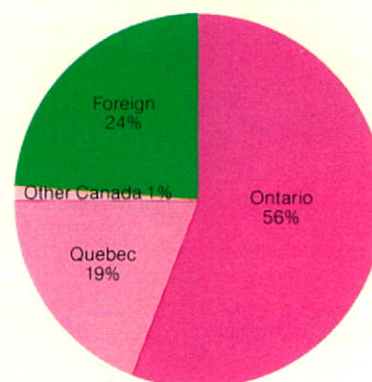
The financial condition of Falconbridge remained strong during 1980. Funds generated from operations exceeded expenditures on property, plant and equipment, and development and preproduction by \$76,996,000; and after the redemption of \$75,000,000 preference shares, working capital as at December 31, 1980 amounted to \$362,119,000, reflecting a decrease of \$18,764,000 in the year. The weak demand for nickel in the latter half of 1980 is a factor in the change in the composition of working capital; the decrease in cash and accounts receivable was more than offset by an increase of \$75,274,000 in inventories.

Falconbridge Dominicana, C. por A. (Falcondo), a 65.7% owned subsidiary of the Company, experienced a cash deficiency during the year (no cash deficiency in 1979). Under financing agreements, the Company and the other sponsor must jointly provide for any shortfall in cash. During 1980 U.S.\$14,223,000 was advanced to Falcondo of which U.S.\$8,534,000 was advanced by the Company. It is anticipated that this cash deficiency will continue in 1981, and additional advances will be required from the Company and the other sponsor.

The financial condition of Falconbridge improved substantially during 1979, working capital increased by \$126,099,000 during the year, to \$380,883,000 as at December 31, 1979. Funds generated from operations during the year amounted to \$208,326,000, far in excess of the \$58,352,000 expenditures on property, plant and equipment, and development and preproduction.



#### CONSOLIDATED CAPITAL EXPENDITURES BY GEOGRAPHICAL AREA IN 1980



#### CONSOLIDATED CAPITAL EXPENDITURES BY GEOGRAPHICAL AREA

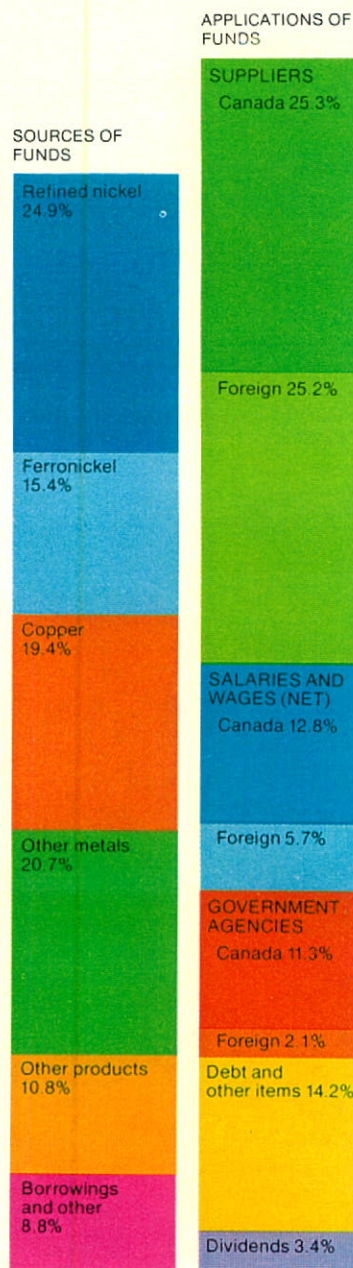
	1980		1979		1978	
	\$ millions	%	\$ millions	%	\$ millions	%
Ontario	\$51.3	56%	\$34.2	59%	\$27.7	64%
Canada total	\$69.0	76%	\$47.8	82%	\$34.5	80%
Foreign	22.0	24	10.6	18	8.5	20
World total	\$91.0	100%	\$58.4	100%	\$43.0	100%



# FALCONBRIDGE NICKEL MINES LIMITED



## CONSOLIDATED SOURCES AND APPLICATIONS OF WORKING CAPITAL (FUNDS) IN 1980



## CONSOLIDATED SOURCES AND APPLICATIONS OF WORKING CAPITAL (FUNDS)

Three years ended December 31, 1980

	1980		1979		1978	
	\$ millions	%	\$ millions	%	\$ millions	%
<b>Sources of funds:</b>						
Product sales—						
Refined nickel	\$206.7	24.9%	\$226.7	27.1%	\$158.6	29.9%
Ferronickel	128.3	15.4	134.1	16.1	90.8	17.1
Nickel, all forms	335.0	40.3	360.8	43.2	249.4	47.0
Copper	161.1	19.4	159.4	19.1	102.2	19.3
Other metals (Zinc, cobalt and precious metals)	172.0	20.7	188.7	22.6	103.8	19.6
Other products	89.7	10.8	80.5	9.6	52.8	10.0
Total product sales	757.8	91.2	789.4	94.5	508.2	95.9
Borrowings and share issues	13.7	1.7	4.0	0.5	8.2	1.5
Other	59.3	7.1	41.8	5.0	13.7	2.6
Total	830.8	100.0%	835.2	100.0%	530.1	100.0%
<b>Applications of funds:</b>						
Suppliers—						
Canada	231.2	25.3%	212.0	30.1%	175.3	36.5%
Foreign	230.7	25.2	179.2	25.4	82.6	17.2
Total	461.9	50.5	391.2	55.5	257.9	53.7
Salaries and wages (net)—						
Canada	117.0	12.8	86.5	12.3	78.0	16.2
Foreign	52.5	5.7	43.0	6.1	30.0	6.3
Total	169.5	18.5	129.5	18.4	108.0	22.5
Government agencies—						
Canada	103.2	11.3	94.3	13.3	56.0	11.6
Foreign	19.2	2.1	12.6	1.8	10.5	2.2
Total	122.4	13.4	106.9	15.1	66.5	13.8
Debt and other items	129.5	14.2	52.4	7.4	41.4	8.6
Dividends to shareholders	31.0	3.4	25.3	3.6	6.5	1.4
Total	914.3	100.0%	705.3	100.0%	480.3	100.0%
Net total	(83.5)		129.9		49.8	
Adjustment—						
Increase in metals inventories	64.7					
Reduction of metals inventories			(3.8)		(50.6)	
Working capital increase (decrease)	\$ (18.8)		\$126.1		\$ (0.8)	

Sources of funds decreased marginally from \$835,200,000 in 1979 to \$830,800,000 in 1980. However, the amount of funds applied increased substantially, from \$705,300,000 in 1979 to \$914,300,000 in 1980. Funds applied to suppliers, salaries and wages, and government agencies increased by \$70,700,000, \$40,000,000 and \$15,500,000 respectively, \$64,700,000 of which is reflected in increased metals inventories and \$32,600,000 in higher capital expenditures. Dividends to shareholders increased by \$5,700,000 and debt and other items by \$77,100,000, including the redemption of the Company's \$75,000,000 preference shares. In 1978 sources of funds amounted to \$530,100,000 and funds applied were \$480,300,000, generally reflecting a lower level of activity. In 1980, 70% of consolidated revenues were earned outside Canada while only 37% of funds were applied in foreign countries. Consolidated revenues earned outside Canada in 1979 and 1978 were 68% and 82%, respectively, while funds applied in foreign countries in 1979 and 1978 were 38% and 30%, respectively.



#### Capital resources —

During 1980 the authorized capital of the Company was increased by the creation of 17,998,000 common shares without par value and \$175,000,000 in preference shares. No new common or preference shares were issued during the year. As at December 31, 1980 shareholders' equity plus long-term debt totalled \$810,360,000, an increase of \$12,847,000 over the total of \$797,513,000 as at December 31, 1979. This increase is after the redemption and cancellation of \$75,000,000 Variable Rate Cumulative Redeemable Preference Shares Series 'A'. The debt/equity ratio at December 31, 1980 was 38:62, unchanged from December 31, 1979.

A \$100,000,000 term loan facility due December 31, 1986, was negotiated with a Canadian bank, as well as extending an existing \$80,000,000 term loan facility from August 31, 1982 to December 31, 1986. The \$75,900,000 drawn down under this combined \$180,000,000 term loan facility remained unchanged during the year.

It is anticipated that property, plant and equipment and development and preproduction expenditures for the year 1981 will be financed through internal generation of funds and existing working capital, with the exception of Kiena Gold Mines Limited which has arranged a \$25,000,000 term loan facility.

The capitalization of the Company remained unchanged during 1979, other than for the normal sinking fund requirements of the long-term debt. All capital expenditures were financed through the internal generation of funds and existing working capital.

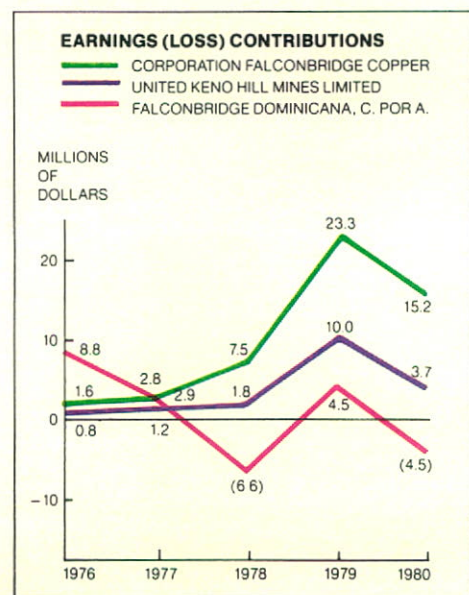
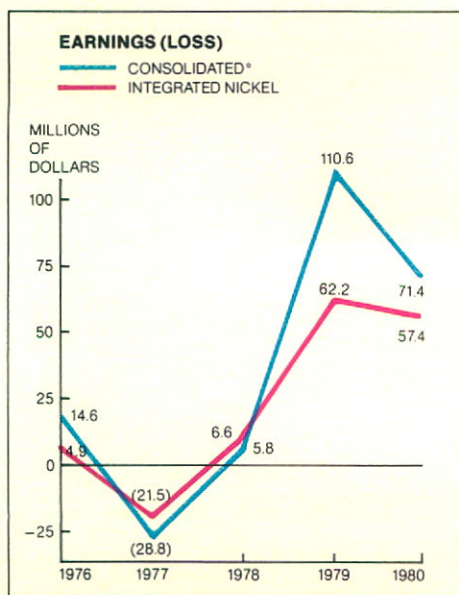
See notes 8, 9 and 15, pages 31, 32 and 34, respectively, of the notes to consolidated financial statements in respect of capitalization, borrowing arrangements and liabilities.

#### ANALYSIS OF RESULTS OF OPERATIONS:

The following paragraphs set forth a discussion of certain factors reflected in the consolidated statement of earnings for the three years ended December 31, 1980. See pages 22 and 23 for a summary of the accounting policies that are significant in evaluating these results. See also pages 36 to 41 for certain segmented data.

Consolidated earnings, before extraordinary item, for the year 1980 amounted to \$71,422,000 or \$13.04 per common share (all per share numbers are after providing for preference share dividends) compared with \$110,561,000 or \$21.01 per share earned in 1979 and \$5,818,000 or 22 cents per share earned in 1978. The acceptance of a public offer by The Superior Oil Company to purchase all the capital stock of Canadian Superior Oil Ltd. increased the Company's consolidated earnings for 1980 by \$37,700,000 to \$109,122,000 or \$20.61 per common share. In 1979 an extraordinary credit of \$20,000,000, for deferred income taxes, increased consolidated earnings to \$130,561,000 or \$25.03 per share. There was no extraordinary item in 1978.

The principal reasons for the decrease in consolidated earnings, before extraordinary item, for 1980, compared with 1979's record high earnings were higher unit production costs and a decrease in the volume of nickel sales. In 1980 the average realized prices for most metals were higher than in 1979. The record level of earnings in 1979, compared with 1978, generally reflects a substantial increase in the average net selling price for metals, a higher nickel and copper sales volume and a weaker Canadian dollar relative to the United States dollar.





# FALCONBRIDGE NICKEL MINES LIMITED

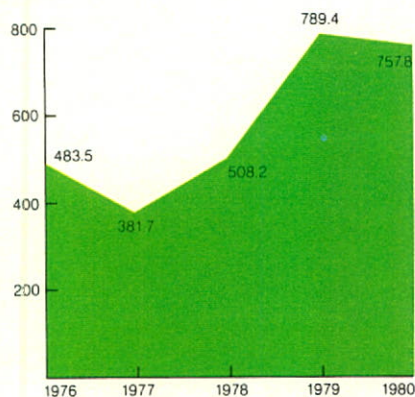


The following table compares the various 1980, 1979 and 1978 contributions to consolidated earnings and shows relative sales statistics:

	1980	1979	1978
	(000's)	(000's)	(000's)
Earnings (loss) contributions:			
Corporation Falconbridge Copper	\$ 15,152	\$ 23,277	\$ 7,498
Falconbridge Dominicana, C. por A.	(4,516)	4,508	(6,596)
Giant Yellowknife Mines Limited	1,150	1,492	613
Indusmin Limited	2,398	2,714	2,027
Oamites Mining Company (Proprietary) Limited	909	1,360	405
United Keno Hill Mines Limited	3,718	10,035	1,825
Other controlled companies	(1,077)	818	102
Total	17,734	44,204	5,874
Westrob Mining Division	1,503	4,597	551
Unallocated corporate, net	(5,187)	(453)	(7,165)
Integrated Nickel Operations, net of allocated corporate costs	57,372	62,213	6,558
Earnings for the year before extraordinary item	71,422	110,561	5,818
Disposal of Canadian Superior shares	37,700		
Deferred income tax credit		20,000	
Earnings for the year	\$ 109,122	\$ 130,561	\$ 5,818
Metal sales (pounds):			
Integrated Nickel Operations —			
Nickel	54,159	84,454	71,341
Copper	53,686	42,460	30,027
Cobalt	1,386	1,294	1,255
Corporation Falconbridge Copper —			
Copper	69,172	83,547	87,555
Zinc	50,984	91,710	85,337
Gold and silver revenues (\$'s)	\$67,426	\$70,358	\$31,921
Falconbridge Nickel Mines Limited —			
Ferronickel	34,567	47,628	43,477
Metal sales prices (U.S. \$ per pound):			
Integrated Nickel Operations —			
Nickel	\$ 3.25	\$ 2.31	\$ 1.94
Copper	\$ 0.99	\$ 0.89	\$ 0.60
Cobalt	\$24.97	\$29.12	\$12.25
Falconbridge Nickel Mines Limited —			
Ferronickel	\$ 3.18	\$ 2.41	\$ 1.82

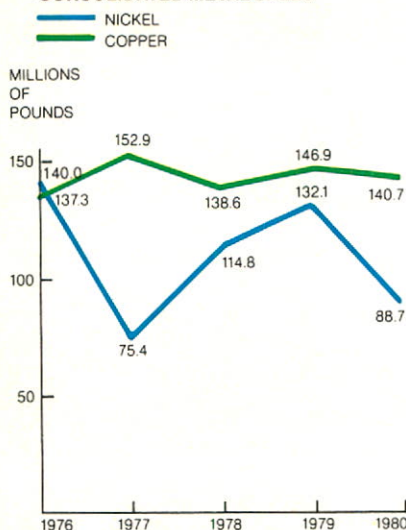
## CONSOLIDATED REVENUES

MILLIONS OF DOLLARS



## CONSOLIDATED METAL SALES

MILLIONS OF POUNDS



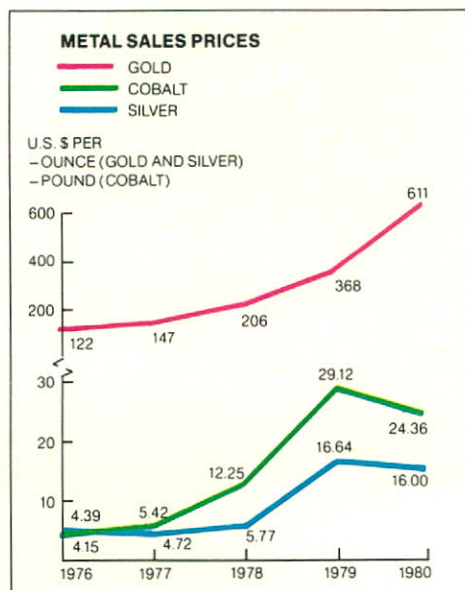
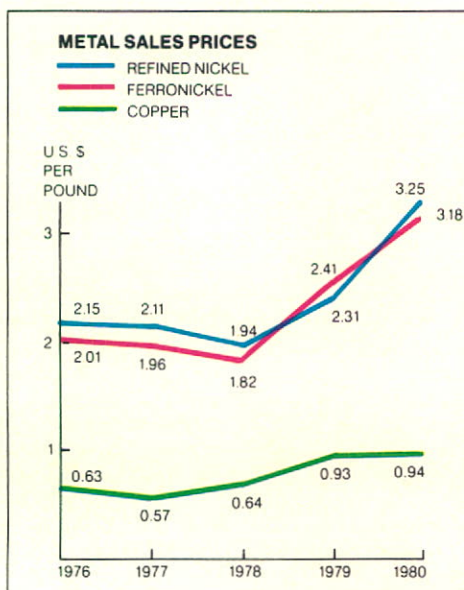


Corporation Falconbridge Copper's \$8,125,000 lower 1980 contribution to consolidated earnings, compared with 1979, mainly results from lower copper and zinc production, reflecting lower grades, and increased costs. The \$15,779,000 higher 1979 earnings, compared with 1978, reflects higher metal prices and continued efforts to hold down costs.

Falconbridge Dominicana, C. por A.'s \$9,024,000 unfavourable change to a loss in 1980 compared with earnings in 1979 reflects a lower ferronickel sales volume, higher unit production costs and the expensing of ongoing costs (\$15,306,000) incurred during the shut down of production operations; partially offset by the impact of a higher average net selling price for ferronickel. The \$11,104,000 improvement in 1979 earnings contribution, compared with the loss in 1978, results from the higher ferronickel selling price and the increased volume which prevailed in 1979; however, these factors were partially offset by the inflationary pressures on all costs, particularly the escalation in oil prices.

Giant Yellowknife Mines Limited's \$342,000 lower 1980 contribution, compared with 1979, mainly results from lower production, because of a 3½ month strike by employees. Partially offsetting the impact of the strike were an increase in the price of gold produced, \$730 per ounce compared with \$412 per ounce in 1979, and a favourable adjustment to the 1979 estimated bullion settlements receivable. The 1979 earnings contribution, compared with 1978, was \$879,000 higher despite higher costs and lower bullion output. The increase was attributable mainly to the dramatic rise in the average price received for gold, from \$233 per ounce in 1978 to \$412 per ounce in 1979.

Indusmin Limited's \$316,000 lower 1980 contribution, compared with 1979, generally reflects the impact of the recession on the demand for its products. The 1979 earnings contribution, compared with 1978, was \$687,000 higher reflecting satisfactory results in both Castings and Minerals Divisions.



Oamites Mining Company (Proprietary) Limited's \$451,000 decrease in 1980 contribution, compared with 1979, mainly results from increased production costs. The 1979 earnings contribution was \$955,000 higher than in 1978, the favourable impact of sharp increases in the prices of copper and silver being partially offset by lower production and higher costs.

United Keno Hill Mines Limited's contribution to consolidated earnings was \$6,317,000 lower in 1980, compared with 1979, mainly reflecting lower production because of a strike of employees which continued from September 11 through year end. The 1979 contribution was \$8,210,000 more than in 1978. The average price of \$19.83 per ounce of silver was \$13.16 per ounce higher than in 1978; however, the impact of the higher prices was partially offset by increased operating costs and lower production.

The \$1,895,000 unfavourable change to a loss in 1980, compared with earnings in 1979, by other controlled companies, generally results from the lower earnings of a small U.S. oil and gas subsidiary and increased exploration expenditures in the U.S.A. by another small U.S. subsidiary. The \$716,000 higher 1979 contribution, compared with 1978, reflects higher earnings of the oil and gas subsidiary.



## FALCONBRIDGE NICKEL MINES LIMITED



Falconbridge Nickel Mines Limited's Westfrob Mining Division's \$3,094,000 lower 1980 earnings, compared with 1979, mainly results from increased costs. The \$4,046,000 higher 1979 earnings, compared with 1978, mainly reflect increased production and improved copper prices.

Increased exploration and administrative expenditures, modified by higher interest income, combined to increase unallocated corporate expenditures by \$4,734,000 in 1980, compared with 1979. Greater income from higher cash deposits and increased interest rates together with interest income from the Company's investment in Western Platinum Limited and higher commissions from increased agency sales, combined to reduce unallocated corporate expenditures by \$6,712,000 from \$7,165,000 in 1978 to \$453,000 in 1979.

The Integrated Nickel Operations earnings of \$57,372,000 in 1980 compared with \$62,213,000 in 1979. The decrease of \$4,841,000 generally results from a lower volume of nickel sales (down 36%) and increased costs, the unfavourable impact of which were partially reduced by a 41% higher average nickel selling price, and a 26% increase in the volume of copper sold. Earnings of \$62,213,000 in 1979 compared with \$6,558,000 in 1978. The improvement of \$55,655,000 mainly reflects higher metal selling prices, increased profits from the treatment and sale of custom materials and increases of 18% and 41%, respectively, in the quantities of nickel and copper sold.

Further discussion and analysis of the results of operations of the Company and its operating subsidiaries is contained throughout the annual report.

### IMPACT OF INFLATION:

As a result of significant and continued inflation traditional historical cost financial statements do not fully reflect the cumulative effects of increasing costs and changes in the purchasing power of the dollar. The extent to which Falconbridge has been affected by inflation is indicated on pages 46 to 50, "Impact of inflation — financial reporting and changing prices".

Falconbridge's 1980 consolidated earnings of \$71,422,000 adjusted for general inflation are reduced to \$16,437,000. Adjusting reported earnings to reflect current costs results in a loss of \$13,763,000. The large variances in results reflected by the use of these different inflation measurement techniques, neither of which is conclusively correct, indicate the significant impact of inflation.

It is significant to note that income and mining taxes based on the higher historical cost 1980 earnings represent a much greater burden than they would if taxes were based on earnings adjusted for inflation, particularly in that Provincial mining taxes are computed on a graduated scale.

Depreciation, depletion and amortization of \$54,131,000 for property, plant, equipment and development and preproduction expenditures reported in the historical cost financial statements compares to \$117,760,000 based on the current costs of the related assets. This indicates that the \$54,131,000 reported in the historical cost financial statements does not adequately reflect the current cost of assets consumed in the production process. The \$692,034,000 higher cost of property, plant, equipment and development and preproduction expenditures (from the historical cost of \$506,131,000 to \$1,198,165,000, adjusted for current costs) indicates that large capital outlays are required to bring new mines and plants on stream and that increased product prices are required to sustain them.

Inflation has a particularly problematic effect on Falconbridge. Because the prices of our products are set in international markets, they do not necessarily reflect the effect of inflation on Falconbridge's various cost components. Consequently, Falconbridge cannot cope with inflation by increasing prices as costs rise. Recognizing that inflation affects all business activity, appropriate allowances are made in Falconbridge's planning and financial forecasting.

In the mining industry, ore reserves are a significant hedge against inflation. Falconbridge's exploration expenditures, which are directed at the acquisition of ore reserves, have doubled in the past year. One offset to inflation is increased productivity through the development of new processes and methods.





**CONSOLIDATED  
FINANCIAL  
STATEMENTS**





FINANCIAL REPORT

ACCOUNTING RESPONSIBILITIES, PROCEDURES AND POLICIES

The Board of Directors which, among other things, is responsible for the consolidated financial statements of the Company, delegates to management the responsibility for the preparation of the statements. Responsibility for their detailed review is delegated by the Board to the Company's audit committee, which reports its findings to the Board. Each year the shareholders appoint independent auditors to examine and report directly to them on the financial statements.

In preparing the financial statements great care is taken to use the appropriate generally accepted accounting principles and estimates considered necessary by management to present fairly and consistently the consolidated financial position and the results of operations. The significant accounting policies followed by Falconbridge are summarized on pages 22 and 23.

The accounting systems employed by Falconbridge include appropriate controls, checks and balances to provide reasonable assurance that Falconbridge's assets are safeguarded from loss or unauthorized use as well as facilitating the preparation of comprehensive, timely and accurate financial information. The internal auditors, who are employed by the Company as part of management, play an integral part in the effective operation of the system. There are limits inherent in all systems of internal accounting control based on the recognition that the cost of such systems should not exceed the benefits to be derived. Falconbridge believes its systems provide the appropriate balance in this respect.

The Company's audit committee is appointed by the Board of Directors annually and is comprised of four non-management directors. The committee meets with management and with the independent auditors (who have free access to the audit committee) to satisfy itself that each group is properly discharging its responsibilities and to review the financial statements and the independent auditors' report. The audit committee reports its findings to the Board of Directors for its consideration in approving the financial statements for issuance to the shareholders.

D. E. Lewis, Q.C.  
Chairman of the  
Audit Committee

H. T. Berry  
President and Chief  
Executive Officer

J. D. Krane  
Vice-President  
Corporate Affairs  
and Secretary



*Clarkson Gordon*

Chartered Accountants

P.O. Box 251  
Toronto-Dominion Centre  
Toronto, Canada M5K 1J7  
(416) 864-1234

AUDITORS' REPORT

To the Shareholders of  
Falconbridge Nickel Mines Limited:

We have examined the following financial statements of Falconbridge Nickel Mines Limited:

Consolidated financial position as at December 31, 1980 and 1979;  
Consolidated earnings, consolidated retained earnings and changes in consolidated financial position for the three years ended December 31, 1980;  
Segmented information as at December 31, 1980, 1979 and 1978 and for the three years ended December 31, 1980; and  
Investment in associated and other companies as at December 31, 1980, 1979 and 1978 and for the three years ended December 31, 1980.

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, the above-mentioned financial statements present fairly the financial position of the company, the results of its operations and the changes in its financial position at the dates and for the periods indicated in accordance with accounting principles generally accepted in Canada, consistently applied.

Toronto, Canada,  
January 30, 1981.

*Clarkson Gordon*  
Chartered Accountants





## **ACCOUNTING POLICIES**

The consolidated financial statements of Falconbridge Nickel Mines Limited have been prepared in accordance with accounting principles generally accepted in Canada, consistently applied. In these statements, references to the Company mean only Falconbridge Nickel Mines Limited, the parent company, and references to Falconbridge include the Company, its consolidated subsidiaries and significantly influenced companies. The principal accounting policies followed by Falconbridge are summarized hereunder to facilitate review of the consolidated financial statements.

### **A. Basis of consolidation and accounting standards**

Investments in subsidiary companies (owned more than 50%) and significantly influenced companies are accounted for as follows:

- (i) Falconbridge generally consolidates the financial statements of subsidiary companies and accounts on an equity basis for those companies over which it exercises significant influence. Those companies incorporated in foreign countries in which there are significant restrictions on the transfer of funds are accounted for on a cost basis;
- (ii) The differences between the interest in the book value of the net assets of consolidated subsidiaries and the carrying value of the investments are allocated to the subsidiary's asset accounts based on their fair values at the date of acquisition. For consolidated operating subsidiaries, the differences are depreciated, depleted or amortized in accordance with the Company's accounting policy for the related asset; and
- (iii) For consolidation purposes foreign subsidiaries' foreign currency financial statements are restated to accord with the Company's accounting policies.

### **B. Translation of foreign currencies**

Foreign currency transactions and account balances have been translated into Canadian dollars as follows:

- (i) Current assets and current liabilities are translated into Canadian dollars at approximate quoted rates of exchange at year end;
- (ii) Items included in property, plant and equipment, other assets, and non-current liabilities are translated into Canadian dollars at rates of exchange prevailing when they were acquired or incurred;
- (iii) Revenues and expenses are translated into Canadian dollars at the approximate average monthly quoted rates of exchange, except that provisions for depreciation, depletion and amortization are translated at the rates used to translate the related assets;
- (iv) Realized foreign exchange gains and losses are included in earnings; and
- (v) On translation of foreign subsidiaries' financial statements for consolidation purposes, net unrealized gains are deferred and losses are reflected in earnings.

### **C. Revenue recognition**

Revenues from the sale of refined metals, ferronickel, industrial minerals and metal castings are recorded in the accounts when legal title passes to the buyer.

Where metals contained in concentrate are sold under contracts, estimated revenues are recorded in the accounts during the month when the concentrates are produced. The estimated revenues may be subject to adjustment on or before final settlement, usually three or four months after the date of production, to reflect changes in metal market prices and weights and assays.

### **D. Valuation of inventories**

Inventories are valued as follows:

- (i) Metals inventories are valued at the lower of cost and net realizable value. Cost includes direct labour and material costs as well as administrative expenses at the operating properties but excludes development and preproduction expenditures and depreciation.

The cost of inventories derived from the Company's ore is determined monthly on a "last-in, first-out" basis, the cost of inventories derived from the subsidiaries' ore and other sources is determined monthly on a "first-in, first-out" basis; and

- (ii) Supplies inventories are valued at the lower of average cost of acquisition and replacement cost.

### **E. Property, plant and equipment**

Property, plant and equipment and related expenditures are accounted for as follows:

- (i) All property, plant and equipment and related deferred development and preproduction expenditures are generally recorded at cost and include, where appropriate, the fair value adjustments referred to in policy A (ii) above. Investment tax credits related to plant and equipment expenditures are recorded as a reduction of the cost of the related asset;
- (ii) The Company depreciates plant and equipment on a straight-line basis over the lesser of their useful lives or the lives of the producing mines to which they relate, limited to a maximum of twenty-five years. Generally the subsidiary companies calculate depreciation on a straight-line basis at rates varying from 5% to 25%. Depreciation is provided on the unit of production basis by the Company's Westrob Mining Division and by Corporation Falconbridge Copper for certain of its properties;



- (iii) Idle plant and equipment resulting from temporary curtailments of operations continue to be depreciated. Care and maintenance costs during standby periods are expensed as incurred;
- (iv) Idle plant and equipment resulting from the termination of operations are carried at estimated salvage value. Upon sale or abandonment, the cost of the fixed assets and the related accumulated depreciation are removed from the accounts and any gains or losses thereon are taken into earnings;
- (v) Depletion of properties is provided over a period equal to the lesser of the estimated life of the resources recoverable from the properties, or twenty-five years;
- (vi) Development and preproduction expenditures are capitalized until the commencement of commercial production. These, together with certain subsequent development expenditures which are also capitalized are amortized over periods not longer than the lives of the producing mines or properties, limited to a maximum of twenty-five years; and
- (vii) Repairs and maintenance expenditures are charged to operations or development and preproduction; major betterments and replacements are capitalized.

**F. Exploration**

Exploration costs incurred to the date of establishing that a property has reserves which have the potential of being economically recoverable are charged against earnings; further costs are generally capitalized and then amortized as appropriate under policy E above.

**G. Research and process development**

Research and process development costs are charged against earnings as incurred.

**H. Retirement plans**

The costs of retirement plans are charged against earnings in the year required fundings are payable and include amounts for current service and amortization of past service costs. Past service costs are generally being amortized and funded over periods of up to fifteen years.

**I. Income and mining taxes**

All companies follow the deferral method of applying the tax allocation basis of accounting for income and mining taxes. Under this method timing differences between the period when income or expenses are reported for tax purposes and the period when they are recorded in the accounts result in deferred taxes.

Where appropriate, income taxes and withholding taxes are provided on the portion of any interest in consolidated foreign subsidiaries' undistributed net income since acquisition which it is reasonable to assume will be transferred in a taxable distribution.

**J. Stock option plan**

The cost to the Company of shares optioned under the plan is allocated over a period of four years from the date options are granted, according to the terms of the plan, and is measured as the amount by which the quoted market value of the Company's shares covered by the grant exceeds the option price specified under the plan throughout the period that options remain outstanding.

Stock option plan costs expensed are included in the accounts payable and accrued charges classification of the statement of financial position until the options are exercised (see note 9 C (ii), page 33).

**K. Interest costs**

Interest costs incurred prior to the commencement of commercial production for projects which are specifically financed by debt are capitalized. Interest costs incurred after the commencement of commercial production are expensed.

**L. Earnings per common share**

Earnings per common share are computed using the weighted average number of shares outstanding during the year (excluding shares held by subsidiary companies).

The preference shareholder's prior claim is deducted from earnings for purposes of this calculation.



# FALCONBRIDGE NICKEL MINES LIMITED

(Incorporated under the laws of Ontario)

## CONSOLIDATED FINANCIAL POSITION

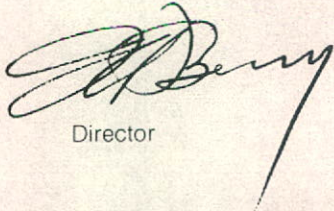
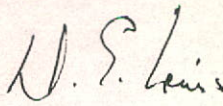
### ASSETS

	December 31,	
	1980	1979
	(000's)	(000's)
<b>CURRENT:</b>		
Cash and temporary investments, at cost which approximates market value .....	\$ 243,080	\$ 259,353
Accounts and metals settlements receivable (note 11, page 33) .....	108,938	155,980
Inventories of metals (note 6, page 29) .....	145,384	80,664
Inventories of supplies .....	50,923	40,369
	<u>548,325</u>	<u>536,366</u>
 <b>PROPERTY, PLANT AND EQUIPMENT</b> (note 7, page 30):		
Producing assets —		
Plant and equipment, at cost .....	663,122	626,579
Land and properties, at cost .....	24,613	24,248
	<u>687,735</u>	<u>650,827</u>
Less accumulated depreciation and depletion .....	401,547	373,940
	<u>286,188</u>	<u>276,887</u>
Development and preproduction expenditures, at cost less amounts written off ...	104,323	87,749
	<u>390,511</u>	<u>364,636</u>
Non-producing assets —		
Properties and projects, at cost less amounts written off .....	115,620	105,743
	<u>506,131</u>	<u>470,379</u>
 <b>OTHER:</b>		
Investment in associated and other companies (Statement 5, page 42) .....	100,442	57,337
Deposits, long-term accounts receivable and other assets, at cost .....	2,169	2,533
Debt discount and issue expenses, at cost less amounts written off .....	2,027	2,756
	<u>104,638</u>	<u>62,626</u>
	 <u>\$ 1,159,094</u>	 <u>\$ 1,069,371</u>

(See notes to consolidated financial statements)



## LIABILITIES AND SHAREHOLDERS' EQUITY

	December 31,	
	1980	1979
	(000's)	(000's)
<b>CURRENT:</b>		
Bank indebtedness .....	\$ 5,075	\$ 4,185
Accounts payable and accrued charges (note 3, page 28) .....	96,197	72,770
Salaries and wages payable .....	23,169	17,976
Income and other taxes payable .....	43,347	46,130
Long-term debt maturing within one year .....	18,418	14,422
	<u>186,206</u>	<u>155,483</u>
<b>LONG-TERM DEBT</b> (notes 3 and 8, pages 28 and 31):		
Falconbridge Nickel Mines Limited .....	167,678	171,994
Falconbridge Dominicana, C. por A. ....	103,850	108,394
Other companies .....	14,273	6,782
	<u>285,801</u>	<u>287,170</u>
<b>DEFERRED INCOME AND MINING TAXES</b> (note 5, page 28) .....	85,284	41,973
<b>MINORITY INTEREST</b> (Statement 4, page 36) .....	95,662	88,824
<b>COMMITMENTS AND CONTINGENCIES</b> (note 11, page 33)		
<b>PREFERENCE SHARES</b> (note 9, page 32):		
Authorized:		
7,000,000 Preference shares of the value of \$25 each (3,000,000 shares in 1979)		
Issued:		
None at December 31, 1980 (3,000,000 shares in 1979) .....		75,000
<b>COMMON SHAREHOLDERS' EQUITY:</b>		
Capital (note 9, page 32) —		
Authorized:		
25,000,000 Common shares without par value		
Issued:		
5,024,755 Common shares .....	89,368	89,368
Retained earnings (notes 8 and 10, pages 31 and 33) .....	419,952	334,732
	<u>509,320</u>	<u>424,100</u>
Less 45,483 Common shares held by subsidiary companies, at cost .....	(3,179)	(3,179)
	<u>506,141</u>	<u>420,921</u>
On behalf of the Board:		
 Director	 Director	
	<u>\$ 1,159,094</u>	<u>\$ 1,069,371</u>



## CONSOLIDATED EARNINGS AND RETAINED EARNINGS

## CONSOLIDATED EARNINGS

(See additional details — Statement 4, page 36)

	Year ended December 31,		
	1980 (000's)	1979 (000's)	1978 (000's)
<b>Revenues</b> .....	<b>\$ 757,815</b>	<b>\$ 789,418</b>	<b>\$ 508,211</b>
<b>Operating expenses:</b>			
Costs of metal and other product sales .....	455,793	469,083	379,995
Selling, general and administrative .....	40,114	34,136	29,932
Development and preproduction .....	23,820	11,019	11,731
Depreciation and depletion .....	30,311	31,613	29,182
Other charges (note 14, page 34) .....	15,306		
	<b>565,344</b>	<b>545,851</b>	<b>450,840</b>
<b>Operating profit</b> .....	<b>192,471</b>	<b>243,567</b>	<b>57,371</b>
Interest and other income .....	37,466	21,815	8,183
	<b>229,937</b>	<b>265,382</b>	<b>65,554</b>
Interest and debt expenses .....	39,112	36,089	33,690
Exploration (note 12, page 33) .....	28,284	14,297	7,662
Research and process development .....	6,636	3,960	3,086
	<b>74,032</b>	<b>54,346</b>	<b>44,438</b>
	<b>155,905</b>	<b>211,036</b>	<b>21,116</b>
Income from investment in associated and other companies (Statement 5, page 42).	9,588	17,589	4,751
<b>Earnings before taxes and other items</b> .....	<b>165,493</b>	<b>228,625</b>	<b>25,867</b>
Income and mining taxes (note 5, page 28):			
Current .....	48,227	54,100	19,087
Deferred .....	31,873	36,898	(6,466)
	<b>80,100</b>	<b>90,998</b>	<b>12,621</b>
<b>Earnings before minority interest and extraordinary item</b> .....	<b>85,393</b>	<b>137,627</b>	<b>13,246</b>
Minority shareholders' interest in earnings of subsidiary companies (Statement 4, page 36) .....	13,971	27,066	7,428
<b>Earnings for the year before extraordinary item</b> .....	<b>71,422</b>	<b>110,561</b>	<b>5,818</b>
Extraordinary item (note 2, page 28) .....	37,700	20,000	
<b>Earnings for the year</b> .....	<b>109,122</b>	<b>130,561</b>	<b>5,818</b>
Dividend requirement on preference shares .....	6,475	5,911	4,732
<b>Earnings applicable to common shares</b> .....	<b>\$ 102,647</b>	<b>\$ 124,650</b>	<b>\$ 1,086</b>
<b>Earnings per common share:</b>			
Before extraordinary item .....	\$13.04	\$21.01	22¢
Extraordinary item .....	7.57	4.02	
For the year .....	<b>\$20.61</b>	<b>\$25.03</b>	<b>22¢</b>

## CONSOLIDATED RETAINED EARNINGS

Retained earnings, beginning of year .....	<b>\$ 334,732</b>	<b>\$ 225,020</b>	<b>\$ 223,934</b>
Earnings for the year .....	<b>109,122</b>	<b>130,561</b>	<b>5,818</b>
	<b>443,854</b>	<b>355,581</b>	<b>229,752</b>
<b>Dividends:</b>			
Common shares (per share: 1980 — \$3.50; 1979 — \$3.00; 1978 — Nil) ....	(17,427)	(14,938)	
Preference shares (per share: 1980 — \$2.158; 1979 — \$1.970; 1978 — \$1.577) .....	(6,475)	(5,911)	(4,732)
Retained earnings, end of year .....	<b>\$ 419,952</b>	<b>\$ 334,732</b>	<b>\$ 225,020</b>

(See notes to consolidated financial statements)



## CHANGES IN CONSOLIDATED FINANCIAL POSITION

	Year ended December 31,		
	1980	1979	1978
	(000's)	(000's)	(000's)
<b>Sources of working capital (funds):</b>			
Operations —			
Earnings for the year before extraordinary item	\$ 71,422	\$ 110,561	\$ 5,818
Charges (credits) not requiring outlay of funds:			
Depreciation and depletion	30,311	31,613	29,182
Development and preproduction	23,820	11,019	11,731
Amortization of debt expenses	175	223	269
Income and mining taxes deferred	30,729	38,286	(6,466)
Minority shareholders' interest in earnings of subsidiary companies	13,971	27,066	7,428
Gains on disposal of fixed assets, net	(449)	(107)	(1,198)
Gains on disposals and write-off of investments, net	(631)	(1,666)	(245)
Interest in earnings of companies accounted for on an equity basis in excess of dividends received	(1,357)	(8,669)	(1,191)
Total from operations	167,991	208,326	45,328
Cash proceeds from disposal of investments (note 2, page 28)	9,165	6,890	381
Proceeds from disposal of fixed assets	1,561	1,962	1,859
Issue of common shares, stock options exercised (note 9, page 32)		8	360
Decrease (increase) in other non-current assets	364	189	(204)
Reclassification of long-term debt maturing within one year			7,828
	179,081	217,375	55,552
<b>Applications of working capital:</b>			
Redemption of preference shares	75,000		
Property, plant and equipment expenditures	50,116	34,072	29,197
Development and preproduction expenditures	40,879	24,280	13,767
Dividends paid by consolidated subsidiary companies and purchase of minority interest of \$3,033,000 in 1978	7,133	4,425	4,756
Decrease in long-term debt, net	815	7,650	3,908
Dividend payments on the preference shares	6,475	5,911	4,732
Dividend payments on the common shares	17,427	14,938	
	197,845	91,276	56,360
Increase (decrease) in working capital during the year	\$ (18,764)	\$ 126,099	\$ (808)
<b>Changes in components of working capital:</b>			
Increase (decrease) in current assets —			
Cash and temporary investments	\$ (16,273)	\$ 155,827	\$ (17,761)
Accounts and metals settlements receivable	(47,042)	25,301	44,717
Inventories	75,274	3,003	(50,281)
	11,959	184,131	(23,325)
Increase (decrease) in current liabilities —			
Bank indebtedness	890	105	(6,621)
Long-term debt maturing within one year	3,996	8,584	(7,414)
Other current liabilities	25,837	49,343	(8,482)
	30,723	58,032	(22,517)
Increase (decrease) in working capital during the year	(18,764)	126,099	(808)
Working capital, beginning of year	380,883	254,784	255,592
Working capital, end of year	\$ 362,119	\$ 380,883	\$ 254,784

(See notes to consolidated financial statements)



# FALCONBRIDGE NICKEL MINES LIMITED

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### 1. Accounting policies

The principal accounting policies followed by Falconbridge are summarized on pages 22 and 23.

### 2. Extraordinary item

As a result of the public offer made by The Superior Oil Company, Houston, Texas (Superior), to purchase all of the capital stock of Canadian Superior Oil Ltd. (Canadian Superior), at a price of 1.145 common shares of Superior and U.S. \$25.00 cash for each share of Canadian Superior the Company received, on January 29, 1980, 336,793 shares of Superior (with a quoted market value of \$59,214,000) and Cdn. \$8,534,000 for its 294,143 Canadian Superior shares, which were carried in the Company's accounts at \$17,465,000. The transaction resulted in a gain of \$37,700,000 (net of a \$12,583,000 provision for income taxes).

The extraordinary item for 1979 of \$20,000,000 reflects the reduction of deferred income taxes resulting from the carry-forward of prior years' losses.

### 3. Translation of foreign currencies

(a) If translated into Canadian dollars at the year end rates of exchange, long-term debt as at December 31, 1980 would increase by \$29,235,000 to \$315,036,000 (at December 31, 1979 it would increase by \$27,925,000 to \$315,095,000). This change is not necessarily indicative of the amount repayable when the obligations are retired.

(b) Net realized exchange losses on foreign currency transactions amounting to \$407,000 in 1980 (1979 — gains, \$1,151,000; 1978 — gains, \$28,000) have been charged to earnings; net unrealized gains on translation of foreign subsidiaries' financial statements for consolidation purposes, before minority interest, amounting to \$12,144,000 at December 31, 1980 (1979 — \$10,582,000; 1978 — \$12,729,000), have been deferred and included in accounts payable and accrued charges.

(c) The average and year end rates of exchange for foreign currencies in which Falconbridge conducts a significant portion of its business were as follows:

	U.S. \$1 = Cdn. \$			Norwegian Kroner 1 = Cdn. \$		
	1980	1979	1978	1980	1979	1978
Average for the year .....	\$ 1.17	\$ 1.17	\$ 1.15	\$ 0.24	\$ 0.23	\$ 0.22
At year end .....	1.19	1.17	1.19	0.23	0.24	0.23

### 4. Retirement plans

The Company and certain of its subsidiaries maintain retirement plans providing retirement, death and termination benefits for substantially all salaried and hourly rated employees.

Total pension expense for the year was \$12,850,000 (1979 — \$8,798,000; 1978 — \$9,741,000) including past service costs of \$6,317,000 (1979 — \$3,238,000; 1978 — \$4,584,000). Based on the most recent actuarial evaluation, the unfunded past service costs for all pension plans in effect at December 31, 1980 are estimated to amount to approximately \$47,000,000 (1979 — \$52,500,000; 1978 — \$32,500,000) including \$24,000,000 (1979 — \$36,500,000; 1978 — \$18,000,000) which is computed to have vested. The companies' present intention is to provide for the unfunded past service costs over periods of up to fifteen years.

### 5. Income and mining taxes

(a) Consolidated income and mining tax expense consists of the following:

	1980	1979	1978
	(000's)	(000's)	(000's)
Canadian taxes —			
Current .....	\$ 45,844	\$ 51,482	\$ 18,026
Deferred .....	35,296	32,985	(179)
	81,140	84,467	17,847
Foreign taxes —			
Current .....	2,383	2,618	1,061
Deferred .....	(3,423)	3,913	(6,287)
	(1,040)	6,531	(5,226)
	\$ 80,100	\$ 90,998	\$ 12,621

(b) The provision for consolidated deferred tax expense results from timing differences between the period when income or expenses are reported for tax purposes and the period when they are recorded in the accounts. The sources and tax effect of these differences are as follows:

	1980	1979	1978
	(000's)	(000's)	(000's)
Depreciation claimed for tax purposes over (under) depreciation expensed in the accounts, net .....	\$ 9,069	\$ 3,543	\$ (3,072)
Exploration, preproduction and mine development costs claimed for tax purposes over (under) amounts expensed in the accounts, net .....	7,970	12,282	3,702
Inventories recorded in accounts on LIFO basis and on tax returns on FIFO basis .....	(9,229)	4,262	(4,500)
Non-capital loss .....	29,756	15,606	
Expenses (losses) carried forward .....	(2,060)	2,754	(3,618)
Other .....	(3,633)	(1,549)	1,022
	\$ 31,873	\$ 36,898	\$ (6,466)



At December 31, 1980 deferred taxes on the statement of financial position amount to \$85,284,000. This amount will be reflected as a component of current tax expense in subsequent years as timing differences are reversed.

- (c) The difference between the amount of the reported consolidated provision for income and mining taxes and the amount computed by multiplying the earnings before taxes by the Company's statutory tax rates is as follows:

	1980				1979				1978			
	Federal and provincial income taxes (000's)	Provincial mining taxes (000's)	Foreign taxes (000's)	Total (000's)	Federal and provincial income taxes (000's)	Provincial mining taxes (000's)	Foreign taxes (000's)	Total (000's)	Federal and provincial income taxes (000's)	Provincial mining taxes (000's)	Foreign taxes (000's)	Total (000's)
Earnings before taxes	\$ 162,414	\$ 162,414	\$ 3,079	\$ 165,493	\$ 198,682	\$ 198,682	\$ 29,943	\$ 228,625	\$ 38,340	\$ 38,340	\$ (12,473)	\$ 25,867
Statutory tax rates	51%	28%*	51%		49%	29%*	49%		49%	18%*	49%	
Earnings before taxes multiplied by the statutory tax rates	\$ 82,831	\$ 45,476	\$ 1,570		\$ 97,354	\$ 57,618	\$ 14,672		\$ 18,787	\$ 6,901	\$ (6,112)	
Taxes reported in accounts	52,179	28,961	(1,040)	\$ 80,100	55,756	28,711	6,531	\$ 90,998	10,590	7,257	(5,226)	\$ 12,621
Difference to be reconciled	\$ (30,652)	\$ (16,515)	\$ (2,610)		\$ (41,598)	\$ (28,907)	\$ (8,141)		\$ (8,197)	\$ 356	\$ 886	
Reconciliation, tax effect of —												
(1) Non-claimable expenses	\$ 2,125	\$ 12,106	\$ 4,778		\$ 2,498	\$ 14,339	\$ 1,075		\$ 660	\$ 3,695	\$ 163	
(2) Resource, depletion, processing and inventory allowances	(30,723)	(11,352)	(844)		(37,066)	(22,438)	(393)		(8,966)	(2,823)		
(3) Adjustments because of differences in companies' statutory tax rates	207	(3,241)	2,057		(739)	(5,353)	(1,395)		(765)	1,126	2,498	
(4) Increase in unrecorded deferred tax debit									2,384			
(5) Non-taxable income	(2,261)	(14,028)	(8,601)		(6,291)	(15,455)	(7,428)		(1,510)	(1,642)	(1,775)	
	\$ (30,652)	\$ (16,515)	\$ (2,610)		\$ (41,598)	\$ (28,907)	\$ (8,141)		\$ (8,197)	\$ 356	\$ 886	

\*Average determined from the graduated scale which ranged from 0% to 40% from January 1, 1978 to April 10, 1979 and 0% to 30% from April 11, 1979 to December 31, 1980.

- (d) No taxes have been provided by the Company in respect of the earnings of its wholly-owned subsidiary, Falconbridge International Limited (Bermuda), as a result of the present intention not to transfer, to Canada, its earnings of U.S.\$35,592,000 accumulated to December 31, 1980 (U.S.\$20,459,000 to December 31, 1979).
- (e) Falconbridge Dominicana, C. por A. (Falcondo), a subsidiary company, has received income tax assessments from the Dominican Government for the 1972 and 1973 fiscal years approximating Cdn. \$5,800,000. Falcondo is presently appealing these assessments, the outcome of which management cannot reasonably predict. As a result no provision has been made by the company or in the consolidated accounts.

## 6. Inventories of metals

Consolidated metals inventories consist of the following:

	1980		1979	
	Metals in process (000's)	Finished metals (000's)	Metals in process (000's)	Finished metals (000's)
Derived from:				
Company's ore	\$ 20,267	\$ 50,234	\$ 14,460	\$ 18,168
Subsidiaries	6,990	50,532	5,593	37,922
Other sources	10,693	6,668	3,535	986
	\$ 37,950	\$ 107,434	\$ 23,588	\$ 57,076
Total inventories of metals	\$ 145,384		\$ 80,664	

For information on the effect of general inflation on inventories and the current cost of inventories, see page 46, "Impact of inflation — financial reporting and changing prices."



# FALCONBRIDGE NICKEL MINES LIMITED

## 7. Property, plant and equipment

(a) The following table details the consolidated property, plant and equipment on a functional basis (see note 3 (b) of the notes to statement of segmented information, page 38):

	1980			1979		
	Cost (000's)	Accumulated depreciation and depletion (000's)	Net book value (000's)	Cost (000's)	Accumulated depreciation and depletion (000's)	Net book value (000's)
<b>Property, plant and equipment:</b>						
Producing assets —						
<b>Plant and equipment:</b>						
Mines, mining plants and ancillary mining assets .....	\$ 400,409	\$ 255,220	\$ 145,189	\$ 378,050	\$ 241,144	\$ 136,906
Smelter .....	107,963	30,644	77,319	104,633	27,383	77,250
Refinery .....	97,876	62,233	35,643	89,999	56,457	33,542
Townsites and other company housing .....	16,972	11,394	5,578	16,844	10,276	6,568
Transportation assets and facilities .....	10,314	9,918	396	10,150	9,771	379
Other .....	29,588	14,730	14,858	26,903	13,039	13,864
	<u>663,122</u>	<u>384,139</u>	<u>278,983</u>	<u>626,579</u>	<u>358,070</u>	<u>268,509</u>
<b>Properties</b> .....	22,887	17,408	5,479	22,489	15,870	6,619
<b>Land</b> .....	1,726		1,726	1,759		1,759
	<u>24,613</u>	<u>17,408</u>	<u>7,205</u>	<u>24,248</u>	<u>15,870</u>	<u>8,378</u>
	<u>\$ 687,735</u>	<u>\$ 401,547</u>	<u>286,188</u>	<u>\$ 650,827</u>	<u>\$ 373,940</u>	<u>276,887</u>
Non-producing assets .....			40,273			30,881
			<u>326,461</u>			<u>307,768</u>
<b>Development and preproduction expenditures:</b>						
Producing assets .....			104,323			87,749
Non-producing assets .....			75,347			74,862
			<u>179,670</u>			<u>162,611</u>
			<u>\$ 506,131</u>			<u>\$ 470,379</u>

For information on the effect of general inflation on property, plant and equipment and the current cost of property, plant and equipment, see page 46, "Impact of inflation — financial reporting and changing prices."

(b) The following assets are included under the caption "Non-producing assets":

Company and project	1980 (000's)	1979 (000's)
Falconbridge Nickel Mines Limited —		
Fraser mine (i) .....	\$ 50,835	\$ 32,171
Other projects (ii) .....	5,677	5,577
Corporation Falconbridge Copper —		
Corbet mine (i) .....		24,229
Other (ii) .....	231	127
Falconbridge Nikkelverk Aktieselskap —		
Process revision program (i) .....	9,017	672
Kiena Gold Mines Limited (i) .....	8,916	2,763
New Quebec Raglan Mines Limited —		
Subsidiary's Cape Smith-Wakeham Bay properties (iii) .....	35,185	34,031
Other subsidiary companies' projects (ii) .....	5,759	6,173
	<u>\$ 115,620</u>	<u>\$ 105,743</u>

(i) In the preproduction or construction stage; Corbet mine commenced commercial production in January, 1980.

(ii) Includes the costs related to certain projects upon which further work has been suspended pending more favourable economics. Falconbridge believes these costs will be recovered.

(iii) Exploration, development and other expenditures relating to New Quebec Raglan Mines Limited (a 68.4% owned subsidiary) and its wholly-owned subsidiary company, Raglan Quebec Mines Limited, incurred in the development of the latter company's Cape Smith-Wakeham Bay properties.



These costs have been capitalized with the intention that they will be amortized by charges against income from future mining operations. Since 1971, when underground work on the properties was suspended, studies have continued on the feasibility of alternate methods of bringing the properties into production. Profits commensurate with the risks of operating in such a remote northern location must be indicated before development to production. The exploration permits and development licences pertaining to these properties expire in 1982 and the Company believes that new permits will be issued.

## 8. Long-term debt

A. Details of long-term debt are as follows:

	1980 (000's)	1979 (000's)
(i) <b>Falconbridge Nickel Mines Limited</b>		
7.75% Sinking fund debentures maturing February, 1991 (a) .....	\$ 43,750	\$ 45,000
8.85% Sinking fund debentures maturing May, 1996 (U.S. \$47,000,000) (b) .....	48,028	51,094
Bank loan due December 31, 1986 (18.5% at December 31, 1980) (c) .....	75,900	75,900
Total (1980 net of \$793,000 maturing within one year) .....	<u>\$ 167,678</u>	<u>\$ 171,994</u>
(a) The Company is required to make sinking fund payments sufficient to retire \$1,250,000 principal amount of the 7.75% debentures in each of the years 1981 to 1990.		
(b) The Company is required to make sinking fund payments sufficient to retire U.S.\$3,000,000 principal amount of the 8.85% debentures in each of the years 1982 to 1995.		
(c) The bank loan is part of a line of credit of \$180,000,000 extended by a Canadian bank until December 31, 1986. Interest is payable monthly at the rate of 1/4 of 1% over the bank's minimum commercial lending rate.		
(ii) <b>Falconbridge Dominicana, C. por A. (Falcondo) (RD\$1 equals U.S.\$1)</b>		
(a) Due to Loma Corporation (Loma)* (Payable in U.S. currency) —		
8.73% Series C demand mortgage notes .....	RD\$ 60,950	RD\$ 68,570
8.5% Series D demand subordinated notes .....	34,000	34,000
	<u>94,950</u>	<u>102,570</u>
* Payment will only be demanded under certain specified circumstances, the most significant being to meet payments due on notes of Loma (a U.S. financing company) issued in the same principal amounts and at the same interest rates as the above demand notes, as follows:		
8.73% Series C secured sinking fund notes, due in semi-annual payments of U.S.\$5,080,000 1981 to 1986 inclusive (this schedule of repayments reflects the 1978 deferment of principal repayments aggregating U.S.\$15,240,000); and		
8.5% Series D guaranteed sinking fund notes, due in semi-annual payments of U.S.\$3,400,000 1987 to 1991 inclusive.		
(b) Due to International Bank for Reconstruction and Development (IBRD) —		
7% Loans, due semi-annually to 1984, payable in various currencies .....	14,620	17,139
	<u>109,570</u>	<u>119,709</u>
(c) Housing —		
9.5% Mortgages on houses repayable monthly to 1993 in Dominican Republic currency .....	1,873	1,969
(d) Contingent monthly payment subordinated notes (Payable in U.S. currency) —		
Advances from the Company and the other sponsor under the terms of the agreement which requires the Company and the other sponsor to provide, respectively, 60% and 40% of the funds required by Falcondo to meet its cash requirements — interest rates vary from 12% to 15.5%, due not later than December 31, 1991 .....	14,223	
(e) Other —		
Unsecured borrowings payable in U.S. funds, bearing interest at 10.5%, due in semi-annual installments to 1985 .....	1,714	
	<u>127,380</u>	<u>121,678</u>
Less long-term debt maturing within one year .....	<u>14,264</u>	<u>11,144</u>
Total — As reported by Falcondo in Dominican Republic currency, translated at year-end rates of exchange .....	<u>RD\$ 113,116</u>	<u>RD\$ 110,534</u>
Total — Expressed in Canadian currency and reflecting consolidation adjustments and Falconbridge's translation policy (1980 net of \$17,028,000 maturing within one year) ..	<u>\$ 103,850</u>	<u>\$ 108,394</u>
(iii) <b>Other companies</b>		
Various maturity dates and interest rates.		
Total (1980 net of \$597,000 maturing within one year) .....	<u>\$ 14,273</u>	<u>\$ 6,782</u>



## FALCONBRIDGE NICKEL MINES LIMITED

### (iv) Maturity and sinking fund requirements

Maturity and sinking fund requirements (stated at 1980 year-end rates of exchange) for the next five years are as follows:

1981 — \$18,418,000	1984 — \$23,411,000
1982 — \$22,782,000	1985 — \$18,398,000
1983 — \$23,396,000	

### B. Guarantees, covenants and restrictions:

(i) Falconbridge Nickel Mines Limited (the Company) has guaranteed portions of the long-term debt and other obligations of Falconbridge Dominicana, C. por A. (Falcondo), the details of which are as follows:

(a) Loans to Falcondo amounting to RD\$109,570,000 are secured by a first mortgage on the assets of the project, which have a net aggregate carrying value of RD\$170,705,000 at December 31, 1980. The Company has agreed to buy all ferronickel of commercial value produced by Falcondo and is also obligated to provide 60% of the funds required by Falcondo to enable it to meet its operating costs and debt service obligations in the event receipts from the sale of ferronickel produced by Falcondo and other receipts are insufficient for that purpose. (The Company has been required since July, 1980, in accordance with the terms of the financing agreements to provide funds totalling U.S.\$8,534,000, representing 60% of the total amount required by Falcondo to meet its cash requirements. The funds so provided to Falcondo are evidenced by notes, which are subordinated to all other debt instruments and can only be repaid under certain circumstances, and bear interest at rates related to the U.S. prime rate which is in effect on the date the notes are issued). The loans from Loma Corporation are covered by a specific risk insurance issued by the Overseas Private Investment Corporation.

(b) The Company has pledged all of its shareholdings in Falcondo against repayment of the Loma Series C demand mortgage notes and the IBRD loans. In addition, the Company has made a direct guarantee for repayment of 60% of the Loma Series D demand subordinated notes.

(c) In accordance with the terms of the loan agreements, funds of \$1,980,000 (1979 — \$3,224,000) (included with cash and temporary investments) are on deposit with the Trustee for use in paying current debt service and operating expenses of Falcondo.

(ii) During the period that the Falcondo loans are outstanding, there are certain restrictions placed on the amount and nature of borrowing that the Company may undertake. Covenants given by the Company in this respect are substantially the same (other than the restriction on the payment of dividends) as those given by the Company under its 8.85% debentures which include limitations as to:

- (a) The amount of dividends which may be paid by the Company (see note 8 B (iii) below);
- (b) The assumption of additional debt; and
- (c) Guarantees which it may give on certain indebtedness of its subsidiary and other companies.

(iii) At December 31, 1980, the portion of retained earnings restricted under the 8.85% debenture covenants and not available for dividend payment and share repurchase was \$170,905,000 (1979 — \$95,905,000).

## 9. Capital

A. On April 15, 1980 at the Annual and a General Meeting, shareholders authorized several amendments to the Articles of the Company including:

- (i) Reclassifying the authorized Class A and Class B convertible shares without par value, whether issued or unissued, as common shares without par value.
- (ii) Increasing the authorized capital of the Company by the creation of —
  - (a) An additional 17,998,000 common shares without par value; and
  - (b) An additional 7,000,000 shares, designated as Preference Shares, with a par value of \$25.00 each, issuable in series.
- (iii) Providing that the Company may purchase any of its issued common shares.

### B. Preference shares

- (i) The creation of an additional 7,000,000 shares (see note 9 A above) increased the authorized preference shares from 3,000,000 to 10,000,000 at April 15, 1980.
- (ii) The 3,000,000 Variable Rate Cumulative Redeemable Preference Shares, Series "A", which were issued in 1977 to a Canadian bank, were redeemed at their par value, and cancelled on December 30, 1980. The shares had a cumulative variable dividend rate calculated on a quarterly basis, equal to one-half of the bank's minimum lending rate plus 1.5%; and the dividend rate averaged 8.63% during 1980 (1979 — 7.88%; 1978 — 6.31%).

### C. Common shares

(i) The common share capital as at December 31, 1979 was as follows:

Authorized:

7,001,000 Convertible shares without par value  
1,000 Common shares without par value

Issued:

5,024,755\* Convertible shares ..... \$89,368,000

\*Includes 45,483 shares held by subsidiary companies.



- (ii) In 1979, the Company reserved 200,000 unissued common shares without par value for the purpose of granting options to purchase shares of the Company to certain full time employees of the Company or a subsidiary or associated company. The price for which the shares may be optioned shall be the closing bid price for the common shares on the business day immediately preceding the granting of the option less a discount of 10%. Options are exercisable, over a period of four years, at the rate of 25% of the shares optioned times the number of periods of twelve months each which have elapsed since the date the option was granted less the aggregate number of options already exercised or surrendered. The optionee may also be given the right, at the time of exercise, to surrender the right to purchase shares under the options in return for receipt of cash equal to the excess of the fair market value of the shares over the option price thereof. No options have been granted to date.
- (iii) No common shares were issued during 1980. Under the previous stock option plan, 300 common shares were issued for \$7,500 in 1979; and 14,400 common shares were issued for \$360,000 in 1978.

#### 10. Interest in investees' undistributed earnings

Consolidated retained earnings includes the Company's share of the undistributed earnings of its (i) consolidated subsidiaries; and (ii) equity accounted for companies, which, respectively, amounted to \$89,627,000 and \$15,565,000 (1979 — \$82,900,000 and \$14,208,000 respectively; 1978 — \$44,186,000 and \$5,439,000 respectively).

#### 11. Commitments and contingencies

- (a) There are commitments outstanding at December 31, 1980 aggregating approximately \$6,200,000 (December 31, 1979 — \$6,700,000) in connection with capital expenditure programs.
- (b) The following are under continuing study and discussion with Government officials:
  - (i) The construction in Canada of facilities for refining ores mined in Ontario. The Company has received, however, an exemption by the Ontario Government, until December 31, 1989, from a requirement to refine in Canada ores mined from certain properties of the Company in Ontario, such exemption being limited to the quantity of nickel-copper matte capable of producing not more than 100,000,000 pounds of refined nickel per year;
  - (ii) The requirement that, by December 31, 1983, the Company take such steps as are necessary to reduce emissions of sulphur dioxide from its Sudbury smelter complex so that in the aggregate they comply with the standards prescribed by the Ontario Government; and
  - (iii) The mounting concern of Environment Canada (an agency of the Federal Government) regarding acid rain and long range transport of pollutants.

It is presently not practicable to estimate the potential costs to Falconbridge which may arise from these items.
- (c) During 1980, 1979 and 1978 a portion of accounts receivable was either sold without recourse or discounted with recourse. The cost, which was charged against earnings, amounted to \$3,603,000 in 1980 (1979 — \$2,062,000; 1978 — \$1,705,000). At December 31, 1980 the Company has a contingent liability of U.S.\$18,180,000 (1979 — U.S.\$41,001,000) in respect of discounted bills of exchange drawn on its accounts receivable.
- (d) The Company is committed to subscribe, proportionately with the other shareholders, to an issue of shares by Western Platinum Limited (the proceeds of which will be used to finance capital expenditures). The Company will acquire 25% of the shares issued at a cost of approximately \$7,500,000.
- (e) No material provision for doubtful accounts has been made and none is considered necessary.
- (f) See notes 4, 5 (e) and 8 B (i), pages 28, 29 and 32, respectively, which detail other commitments and contingencies.

#### 12. Transactions with related companies

Falconbridge is a member of a group of related companies. The Company's holdings in this group are described in Statement 5, page 42. Other significant holdings within the group include The Superior Oil Company's (Superior) 24% interest in Western Platinum Limited (Western Platinum) and its 100% interest in Canadian Superior Oil Ltd. (Canadian Superior). McIntyre Mines Limited (McIntyre), which holds a 36.8% interest in Falconbridge, is owned 26.7% by Superior and 26.4% by Canadian Superior.

The following significant transactions of an ongoing nature occurred between Falconbridge and other members of the group:

- (a) Matte produced from Western Platinum ore is refined on a fee basis and the refined metals are marketed on an agency basis by Falconbridge. Fees and commissions totalled \$7,061,000 in 1980 (1979 — \$6,648,000; 1978 — \$4,537,000).
- (b) The Company engages in a number of mineral exploration programs with Superior and other members of the related group. The Company's participating interest in these projects ranges up to 51%, and the Company's cost is equal to its share of the overall cost.

The most significant of these ventures include:

- (i) Exploration and development of the Quebrada Blanca mining claims in northern Chile pursuant to July, 1977 agreements between the Company, Superior, Canadian Superior, McIntyre and the government of Chile. The Company's 20% participation to date has been \$4,670,000 of which \$2,162,000 was expended in 1980 (1979 — \$1,431,000; 1978 — \$1,077,000);
- (ii) Exploration for minerals in various African countries pursuant to an agreement between the Company and Superior. The Company's participating interest is 50% and to date \$7,545,000 has been expended on these projects, of which \$4,799,000 was expended in 1980 (1979 — \$2,118,000; 1978 — \$628,000); and
- (iii) The exploration for diamonds in North America. Participation, with Superior, ranges up to 51% and to date \$2,195,000 has been expended of which \$1,762,000 was expended in 1980 (1979 — \$433,000).

See also notes 2 and 8 B (i) (a), pages 28 and 32, for other transactions which occurred between the Company and related members of the group.



## FALCONBRIDGE NICKEL MINES LIMITED

### 13. Earnings per common share

Earnings per common share are based on the weighted average number of common shares outstanding during each year (excluding shares held by subsidiary companies) as follows:

1980 — 4,979,272; 1979 — 4,979,184; and 1978 — 4,965,618

The preference shareholder's prior claim is deducted from earnings for purposes of this calculation.

Common shares issuable under employee stock option plans are excluded from the aforementioned weighted average number of common shares because their dilutive effect is not material in any period reported. The exercisable options outstanding at the end of each period are as follows:

1980 and 1979 — Nil; 1978 — 300

### 14. Other charges

Other charges, in 1980, represent the ongoing costs during the five-month shut down of Falconbridge Dominicana, C. por A.'s ferronickel production operations.

### 15. Compensating balances and borrowing arrangements

No company within the Falconbridge group of companies is required to maintain a compensating balance under any borrowing arrangement. Falconbridge Dominicana, C. por A. is required, under loan agreements, to keep funds on deposit with the Trustee for use in paying current debt service and other expenses (see note 8 B (i) (c), page 32).

The various borrowing arrangements, which have been established over a period of years, are as follows:

#### FALCONBRIDGE NICKEL MINES LIMITED

The Company has an unsecured \$75,900,000 term loan from a Canadian bank (the Bank) pursuant to a line of credit of \$180,000,000 extended by it to the Company. Use of this line of credit is restricted under guarantees and covenants (see note 8 B, page 32). Interest is payable at a rate of  $\frac{1}{4}$  of 1% above the Bank's minimum commercial lending rate. A fee of  $\frac{1}{4}$  of 1% will apply to any undrawn portion of the credit, payable monthly. Interest was payable at the rate of 18.5% at December 31, 1980 and averaged 14.69% during the year. The Company has an additional \$40,000,000 operating line of credit with the same bank. The interest rate for this line is  $\frac{1}{4}$  of 1% above the Bank's prime lending rate. This line of credit may also be used to discount U.S. trade paper at rates prevailing at the time of discounting. There is no commitment fee on this line which may be withdrawn at the Bank's discretion.

The Company also has two \$25,000,000 lines of credit with a second Canadian bank. One line of credit can be converted to U.S. dollar loans at the bank's option (exchange risk for the account of the Company). The interest rate for Canadian dollar drawings under this line is the bank's prime lending rate. For U.S. dollar borrowings the rate is the bank's U.S. base rate. The second \$25,000,000 line of credit is available to discount U.S. trade paper at rates prevailing at the time of discounting. There are no commitment fees and both lines may be withdrawn at the bank's discretion.

#### INDUSMIN LIMITED

At December 31, 1980 Indusmin Limited (Indusmin) has an unsecured demand loan totalling \$3,842,000 outstanding to a Canadian bank (the Bank) pursuant to a line of credit of \$9,000,000 extended by the Bank. No commitment fee is payable for this line of credit which can be withdrawn at the Bank's discretion. Interest is payable at the Bank's prime lending rate. During the year, the largest amount of indebtedness outstanding at any one time was \$4,919,000 and the average was \$3,343,000. Interest was payable at 18.25% at December 31, 1980 and averaged 15.04% during the year. The aforementioned \$9,000,000 line of credit may also be utilized by way of banker's acceptances. Indusmin pays  $\frac{3}{8}$  of 1% to the Bank for their acceptance. At December 31, 1980 \$2,000,000 banker's acceptances were outstanding at an average 14.84%.

Fahramet Limited (Fahramet), a wholly-owned subsidiary of Indusmin, has arranged with a Canadian bank a \$7,000,000 revolving credit and term loan facility, secured by hypothecation of shares of Fahramet owned by Indusmin. This loan is repayable in quarterly installments over a five year period commencing December 15, 1982. The loan gives Fahramet various currency and interest rate options. No commitment fee is payable for this loan facility. \$4,000,000 of the \$7,000,000 line of credit utilized in 1980 was by way of banker's acceptances. The largest amount of indebtedness outstanding at any one time in 1980 was \$4,000,000 and the average for the year was \$4,000,000. Fahramet pays  $\frac{3}{8}$  of 1% to the bank for their acceptance. Interest was payable at 14.84% as at December 31, 1980 and averaged 13.41% during the year.

At December 31, 1980, American Nepheline Corporation (ANC), a wholly-owned subsidiary of Indusmin, has a term loan totalling U.S.\$2,300,000, from a U.S. bank, secured by hypothecation of shares of Lawson-United Feldspar and Mineral Company (a wholly-owned subsidiary of ANC). The loan is repayable in quarterly installments over a five year period and bears interest at 1% above the U.S. dollar London Inter-bank rate for Eurodollars for selected maturities. The largest amount of indebtedness outstanding at any one time in 1980 was U.S.\$2,700,000 and the average for the year was U.S.\$2,500,000. Interest was payable at 12.94% at December 31, 1980 and averaged 12.70% during the year.

#### KIENA GOLD MINES LIMITED

Kiena Gold Mines Limited (Kiena) has arranged a \$25,000,000 revolving term loan, due December 31, 1986, with a Canadian bank. The loan is secured by a fixed and floating charge upon Kiena's assets. Interest on this loan is payable at  $\frac{1}{2}$  of 1% above the bank's prime lending rate. Kiena also has an option to utilize this term loan facility by way of banker's acceptances. Kiena pays  $\frac{3}{8}$  of 1% to the bank for their acceptance. The largest amount of indebtedness outstanding at any one time in 1980 was \$8,100,000, the average for the term of the loan was \$5,700,000 and \$8,100,000 was outstanding at December 31. Interest was payable at 15.74% at December 31, 1980 and averaged 12.75% during the term of the loan. No commitment fee is payable for this term loan.



**16. Reconciliation of earnings (loss) prepared in accordance with generally accepted accounting principles (GAAP) in Canada to accord with accounting principles which are generally accepted in the United States (U.S.):**

	Year ended December 31,		
	1980	1979	1978
	(000's)	(000's)	(000's)
Earnings for the year, as reported .....	\$ 109,122	\$ 130,561	\$ 5,818
Deduct extraordinary item, as reported (iv) .....	(37,700)	(20,000)	
Adjustments to accord with U.S. GAAP:			
1. Record long-term debt at exchange rate current at the end of each year (i) .....	(1,151)	4,050	(13,635)
2. Record gains which were deferred on translation of foreign subsidiaries' accounts for consolidation purposes (ii) .....	1,582	(1,459)	4,947
3. Adjust income tax reassessments (ii) .....		3,296	(115)
4. Record capitalization of interest cost (iii) .....	3,324		
Earnings (loss) from continuing operations in accordance with U.S. GAAP .....	75,177	116,448	(2,985)
Disposal of Canadian Superior shares (iv) .....	37,700		
Extraordinary item under U.S. GAAP (iv) .....		20,000	
Earnings (loss) for the year in accordance with U.S. GAAP .....	<u>\$ 112,877</u>	<u>\$ 136,448</u>	<u>\$ (2,985)</u>
Earnings (loss) per common share in accordance with U.S. GAAP:			
From continuing operations .....	\$13.80	\$22.20	\$(1.55)
Disposal of Canadian Superior shares .....	7.57		
From extraordinary item .....		4.02	
For the year .....	<u>\$21.37</u>	<u>\$26.22</u>	<u>\$(1.55)</u>

(i) Under Canadian GAAP Falconbridge translates long-term debt into Canadian dollars at rates of exchange prevailing when the debts were incurred and defers net unrealized gains on translation of foreign subsidiaries' financial statements for consolidation purposes. U.S. GAAP require recognition of all gains or losses resulting from translation of foreign currencies at year-end exchange rates.

(ii) Under Canadian GAAP Falconbridge gives retroactive accounting treatment to reassessments of prior years' tax. For fiscal years beginning 1978, the U.S. professional pronouncements require that the cumulative effect of the tax reassessments be given recognition in current income.

(iii) Consistent with the Canadian mining industry's policy of capitalizing all costs incurred during the preproduction stage of a project, Falconbridge capitalizes interest costs incurred prior to the commencement of commercial production for projects which are specifically financed by debt capital. Interest costs incurred after the commencement of commercial production are expensed.

For fiscal years beginning in 1980 U.S. GAAP require the capitalization of interest costs as part of the historical cost of acquiring certain assets whether or not the assets are specifically financed by debt.

(iv) See note 2, page 28.



# FALCONBRIDGE NICKEL MINES LIMITED

## SEGMENTED INFORMATION (Thousands of dollars)

December 31, 1980

% ownership	Integrated Nickel Operations (100%) (note 2)	Unallocated corporate (100%) (note 2)	Westrob Mining Division (100%) (note 8)	Corporation Falconbridge Copper (50.2%) (note 9)	Falconbridge Dominicana, C. por A. (65.7%) (note 3)	Indusmin Limited (69.0%)	Damites Mining Company (Proprietary) Limited (74.9%)	Other	Consolidation adjustments (note 3)	Consolidated total	Integrated Nickel Operations (100%) (note 2)	Unallocated corporate (100%) (note 2)	Westrob Mining Division (100%) (note 8)
<b>EARNINGS (note 3):</b>													
Revenues	\$ 350,496	\$ 5,443	\$ 18,473	\$ 171,428	\$ 137,614	\$ 63,945	\$ 20,003	\$ 3,913	\$ (13,500)	<b>\$757,815</b>	\$ 348,973	\$ 5,937	\$ 21,069
Operating expenses —													
Costs of metal and other product sales	192,906		15,673	93,897	104,214	46,536	14,121	1,560	(13,114)	<b>455,793</b>	208,589		12,829
Selling, general and administrative	19,604	6,095	2	1,767	10,332	6,830	2,387	1,284	(8,187)	<b>40,114</b>	17,919	4,130	168
Development and preproduction	12,430		226	10,011	1,498	31	127		(503)	<b>23,820</b>	5,613		315
Depreciation and depletion	14,729	166	455	3,062	7,141	3,016	1,194	404	144	<b>30,311</b>	13,893	306	556
Other charges					15,306					<b>15,306</b>			
	<b>239,669</b>	<b>6,261</b>	<b>16,356</b>	<b>108,737</b>	<b>138,491</b>	<b>56,413</b>	<b>17,829</b>	<b>3,248</b>	<b>(21,660)</b>	<b>565,344</b>	<b>246,014</b>	<b>4,436</b>	<b>13,868</b>
Operating profit (loss)	110,827	(818)	2,117	62,691	(877)	7,532	2,174	665	8,160	<b>192,471</b>	102,959	1,501	7,201
Interest (net) and debt expenses	(5,150)	(2,575)		(9,955)	13,651	1,332	(133)	(37)	4,513	<b>1,646</b>	1,571	786	
Exploration	5,127	13,560		7,569	214	75		1,739		<b>28,284</b>	2,390	6,848	586
Research and process development	6,289					347				<b>6,636</b>	3,640		
	<b>6,266</b>	<b>10,985</b>		<b>(2,386)</b>	<b>13,865</b>	<b>1,754</b>	<b>(133)</b>	<b>1,702</b>	<b>4,513</b>	<b>36,566</b>	<b>7,601</b>	<b>7,634</b>	<b>586</b>
Earnings (loss) before investment income and taxes	104,561	(11,803)	2,117	65,077	(14,742)	5,778	2,307	(1,037)	3,647	<b>155,905</b>	95,358	(6,133)	6,615
Investment income		9,489		101		157		23	(182)	<b>9,588</b>		17,589	
Earnings (loss) before taxes	104,561	(2,314)	2,117	65,178	(14,742)	5,935	2,307	(1,014)	3,465	<b>165,493</b>	95,358	11,456	6,615
Income and mining taxes	47,189	(2,001)	614	34,845	(5,193)	2,248	920	69	1,409	<b>80,100</b>	33,145	294	1,941
Earnings (loss) for the year before other items	\$ 57,372	\$ (313)	\$ 1,503	\$ 30,333	\$ (9,549)	\$ 3,687	\$ 1,387	\$ (1,083)	\$ 2,056	<b>\$ 85,393</b>	\$ 62,213	\$ 11,162	\$ 4,674
Minority shareholders' interest in earnings (loss)				\$ 15,109	\$ (2,621)	\$ 1,135	\$ 348			<b>\$ 13,971</b>			
Falconbridge's interest in above earnings (loss) after consolidation adjustments (note 3)	\$ 57,372	\$ (313)	\$ 1,503	\$ 15,152	\$ (4,516)	\$ 2,398	\$ 909	\$ (1,083)		<b>\$ 71,422</b>	\$ 62,213	\$ 11,162	\$ 4,697
<b>FINANCIAL POSITION (note 2) —</b>													
<b>Working Capital (note 5):</b>													
Current assets	\$ 324,825		\$ 9,548	\$ 142,138	\$ 80,835	\$ 26,972	\$ 8,295	\$ 2,369	\$ (46,657)	<b>\$548,325</b>	\$ 334,899		\$ 12,753
Current liabilities	136,411		3,027	35,155	28,691	13,843	4,378	3,844	(39,143)	<b>186,206</b>	106,718		2,566
	<b>\$ 188,414</b>		<b>\$ 6,521</b>	<b>\$ 106,983</b>	<b>\$ 52,144</b>	<b>\$ 13,129</b>	<b>\$ 3,917</b>	<b>\$ (1,475)</b>	<b>\$ (7,514)</b>	<b>\$362,119</b>	<b>\$ 228,181</b>		<b>\$ 10,187</b>
<b>Property, Plant and Equipment (notes 3 and 6):</b>													
Producing assets, at net book value —													
Plant and equipment	\$ 161,548		\$ 2,922	\$ 10,225	\$ 78,290	\$ 20,443	\$ 3,655	\$ 1,418	\$ 482	<b>\$278,983</b>	\$ 153,413		\$ 2,927
Land and properties	3,546				1,839	1,273	65	886	(404)	<b>7,205</b>	3,789		42
Development and preproduction expenditures	55,141		880	17,036	35,345	372	1,297		(5,748)	<b>104,323</b>	52,705		1,700
	<b>\$ 220,235</b>		<b>\$ 3,802</b>	<b>\$ 27,261</b>	<b>\$ 115,474</b>	<b>\$ 22,088</b>	<b>\$ 5,017</b>	<b>\$ 2,304</b>	<b>\$ (5,670)</b>	<b>\$390,511</b>	<b>\$ 209,907</b>		<b>\$ 4,669</b>
Non-producing assets, at cost less amounts written off	\$ 67,165			\$ 266		\$ 639		\$ 54,605	\$ (7,055)	<b>\$115,620</b>	\$ 40,059		
<b>Long-term debt</b>	\$ 167,678				\$ 113,763	\$ 5,995		\$ 8,278	\$ (9,913)	<b>\$285,801</b>	\$ 171,994		
<b>Minority shareholders' interest in equity</b>				\$ 63,185	\$ 14,984	\$ 8,639	\$ 1,548	\$ 7,306		<b>\$ 95,662</b>			
<b>DIVIDEND PAYMENTS TO</b>													
— Company				\$ 6,510		\$ 725	\$ 801	\$ 17		<b>\$ 8,053</b>			
— Others	\$ 23,902			\$ 6,461		\$ 326	\$ 268			<b>\$ 30,957</b>	\$ 20,849		
<b>CAPITAL EXPENDITURES</b>	\$ 64,946		\$ 484	\$ 9,306	\$ 3,234	\$ 3,331	\$ 1,706	\$ 7,988		<b>\$ 90,995</b>	\$ 37,008		\$ 99
<b>MARKET VALUE OF FALCONBRIDGE'S SHAREHOLDINGS (note 7)</b>				\$ 78,116		\$ 12,090		\$ 102,856		<b>\$ 193,062</b>			
<b>PRINCIPAL LOCATION OF ASSETS</b>	Ontario and Norway		British Columbia	Quebec and Ontario	Dominican Republic	Ontario, Quebec and U.S.A.	Namibia				Ontario and Norway		British Columbia
<b>PRINCIPAL PRODUCTS</b>	Nickel, copper and cobalt		Iron and copper	Copper, zinc and precious metals	Ferronickel	Industrial minerals and metal castings	Copper				Nickel, copper and cobalt		Iron and copper
<b>MAJOR MARKETS FOR PRINCIPAL PRODUCTS</b>	Europe, U.S.A. and Japan		U.S.A. and Japan	Canada and Europe	Europe, U.S.A. and Japan	Canada and U.S.A.	Europe				Europe, U.S.A. and Japan		U.S.A. and Japan

(See notes to statement of segmented information)



December 31, 1979

December 31, 1978

	Corporation Falconbridge Copper	Falconbridge Dominicana, C. por A.	Indusmin Limited	Oamites Mining Company (Proprietary) Limited	Other	Consolidation adjustments	Consolidated total
	(50.2%) (note 9)	(65.7%) (note 3)	(69.0%)	(74.9%)		(note 3)	
369	\$ 204,818	\$ 160,648	\$ 56,038	\$ 18,495	\$ 3,807	\$ (30,367)	\$ 789,418
329	100,665	116,344	38,859	12,222	1,279	(21,704)	469,083
168	1,554	7,253	5,887	1,821	600	(5,196)	34,136
315	3,973	1,486	30	105		(503)	11,019
356	5,271	7,050	2,851	1,090	450	146	31,613
368	111,463	132,133	47,627	15,238	2,329	(27,257)	545,851
201	83,355	28,515	8,411	3,257	1,478	(3,110)	243,567
386	(4,201)	13,155	1,011	(12)	(71)	2,035	14,274
386	3,583	153	92		635		14,297
			354			(34)	3,960
386	(608)	13,308	1,457	(12)	564	2,001	32,531
315	93,963	15,207	6,954	3,269	914	(5,111)	211,036
	86		50		22	(158)	17,589
315	94,049	15,207	7,004	3,269	936	(5,269)	228,625
341	47,500	5,324	2,871	1,179	215	(1,471)	90,998
374	\$ 46,549	\$ 9,883	\$ 4,133	\$ 2,090	\$ 721	\$ (3,798)	\$ 137,627
	23,186	\$ 2,091	\$ 1,274	\$ 525	\$ (10)		\$ 27,066
597	\$ 23,277	\$ 4,508	\$ 2,714	\$ 1,360	\$ 730		\$ 110,561
753	\$ 128,127	\$ 83,027	\$ 23,717	\$ 8,301	\$ 1,838	\$ (56,296)	\$ 536,366
566	42,933	26,997	12,650	4,841	393	(41,615)	155,483
187	\$ 85,194	\$ 56,030	\$ 11,067	\$ 3,460	\$ 1,445	\$ (14,681)	\$ 380,883
927	\$ 3,280	\$ 82,400	\$ 20,112	\$ 4,122	\$ 1,276	\$ 979	\$ 268,509
42	862	1,891	1,303	86	851	(446)	8,378
700	2,520	36,843	403	424		(6,846)	87,749
369	\$ 6,662	\$ 121,134	\$ 21,818	\$ 4,632	\$ 2,127	\$ (6,313)	\$ 364,636
	\$ 25,059		\$ 632		\$ 46,457	\$ (6,464)	\$ 105,743
	\$ 108,394		\$ 6,557		\$ 225		\$ 287,170
	\$ 54,537	\$ 17,606	\$ 7,829	\$ 1,468	\$ 7,384		\$ 88,824
	\$ 3,906		\$ 725	\$ 793	\$ 186		\$ 5,610
	\$ 3,876		\$ 326	\$ 269			\$ 25,320
99	\$ 10,489	\$ 1,022	\$ 7,124	\$ 772	\$ 1,838		\$ 58,352
	\$ 65,097		\$ 12,896		\$ 58,740		\$ 136,733
h ia	Quebec and Ontario	Dominican Republic	Ontario, Quebec and U.S.A.	Namibia			
	Copper, zinc and precious metals	Ferronickel	Industrial minerals and metal castings	Copper			
an	Canada and Europe	Europe, U.S.A. and Japan	Canada and U.S.A.	Europe			

	Integrated Nickel Operations	Unallocated corporate	Westrob Mining Division	Corporation Falconbridge Copper	Falconbridge Dominicana, C. por A.	Indusmin Limited	Oamites Mining Company (Proprietary) Limited	Other	Consolidation adjustments	Consolidated total
	(100%) (note 2)	(100%) (note 2)	(100%) (note 8)	(50.2%) (note 9)	(65.7%) (note 3)	(69.0%)	(74.9%)		(note 3)	
	\$ 209,915	\$ 2,021	\$ 13,222	\$ 132,429	\$ 89,469	\$ 46,686	\$ 13,380	\$ 2,095	\$ (1,006)	\$ 508,2
	162,737		10,851	87,443	76,092	32,665	10,079	883	(755)	379,5
	14,231	3,354	63	1,050	6,776	5,235	1,313	597	(2,687)	29,9
	4,282		520	4,459	2,844	30	99		(503)	11,7
	12,006	540	898	3,816	7,621	2,901	883	297	220	29,1
	193,256	3,894	12,332	96,768	93,333	40,831	12,374	1,777	(3,725)	450,8
	16,659	(1,873)	890	35,661	(3,864)	5,855	1,006	318	2,719	57,3
	7,061	3,588		(1,366)	13,825	815	51	(30)	1,563	25,5
	1,215	3,515	347	2,163	82	7		333		7,6
	3,006					132			(52)	3,0
	11,282	7,103	347	797	13,907	954	51	303	1,511	36,2
	5,377	(8,976)	543	34,864	(17,771)	4,901	955	15	1,208	21,1
		3,966						785		4,7
	5,377	(5,010)	543	34,864	(17,771)	4,901	955	800	1,208	25,8
	(1,181)	279	5	17,267	(6,042)	1,836	336	163	(42)	12,6
	\$ 6,558	\$ (5,289)	\$ 538	\$ 17,597	\$ (11,729)	\$ 3,065	\$ 619	\$ 637	\$ 1,250	\$ 13,2
				\$ 10,040	\$ (3,706)	\$ 942	\$ 156	\$ (4)		\$ 7,4
	\$ 6,558	\$ (5,289)	\$ 551	\$ 7,498	\$ (6,596)	\$ 2,027	\$ 405	\$ 664		\$ 5,8
	\$ 236,211		\$ 6,188	\$ 65,807	\$ 56,155	\$ 17,566	\$ 4,479	\$ 1,887	\$ (36,058)	\$ 352,2
	77,386		2,360	20,282	11,577	9,299	2,410	645	(26,508)	97,4
	\$ 158,825		\$ 3,828	\$ 45,525	\$ 44,578	\$ 8,267	\$ 2,069	\$ 1,242	\$ (9,550)	\$ 254,7
	\$ 146,543		\$ 3,430	\$ 5,125	\$ 89,204	\$ 15,831	\$ 4,438	\$ 541	\$ 1,151	\$ 266,2
	3,753		50	2,796	1,943	1,333	108	417	(454)	9,9
	52,124		2,015	5,351	38,309	434	509		(7,350)	91,3
	\$ 202,420		\$ 5,495	\$ 13,272	\$ 129,456	\$ 17,598	\$ 5,055	\$ 958	\$ (6,653)	\$ 367,6
	\$ 31,298			\$ 16,822		\$ 632		\$ 46,510	\$ (6,349)	\$ 88,9
	\$ 173,244				\$ 118,554	\$ 3,018		\$ 187		\$ 295,0
				\$ 35,227	\$ 15,516	\$ 6,882	\$ 1,212	\$ 7,346		\$ 66,1
				\$ 1,302		\$ 725	\$ 383			\$ 2,4
	\$ 4,732			\$ 1,292		\$ 326	\$ 132			\$ 6,4
	\$ 30,429		\$ 241	\$ 8,543	\$ 834	\$ 2,024	\$ 278	\$ 615		\$ 42,9
				\$ 43,940		\$ 11,284		\$ 15,786		\$ 71,0
	Ontario and Norway	British Columbia	Quebec and Ontario	Dominican Republic	Ontario, Quebec and U.S.A.	Namibia				
	Nickel, copper and cobalt	Iron and copper	Copper, zinc and precious metals	Ferronickel	Industrial minerals and metal castings	Copper				
	Europe, U.S.A. and Japan	U.S.A. and Japan	Canada and Europe	Europe, U.S.A. and Japan	Canada and U.S.A.	Europe				



# FALCONBRIDGE NICKEL MINES LIMITED

## NOTES TO STATEMENT OF SEGMENTED INFORMATION

### 1. Translation of foreign currencies

Foreign currency items have been translated into Canadian dollars as explained in accounting policy B on page 22.

### 2. Integrated Nickel Operations and Unallocated corporate

Included under the caption "Integrated Nickel Operations" are the accounts of the Company and all its wholly-owned subsidiaries engaged in the integrated operations of mining, milling, smelting, refining and marketing of nickel mainly derived from Canadian ore. The Integrated Nickel's production operations are interdependent and are carried on in Canada (mainly mining and reducing ore to matte at Sudbury) and in Norway (matte refining). The Marketing Division is structured to serve worldwide markets and contracts the processing of material containing cobalt, nickel and other metals, on a fee basis (refined metals produced from these sources are either marketed on an agency basis or returned to the owner of the material). That portion of the Company's net corporate expenditures relating to the overall direction and management of other activities of the Falconbridge group of companies and income from investment in associated and other companies have been segregated under the caption "Unallocated corporate". It is not practicable to segregate the Integrated Nickel Operations and the Company's corporate financial position items.

The Integrated Nickel Operations and Company's corporate financial position at December 31, 1980 includes identifiable assets of \$49,914,000 in Norway (1979 — \$38,536,000; and 1978 — \$34,917,000).

The 1979 Integrated Nickel Operations and Unallocated corporate earnings have been restated to reflect the reclassification of \$2,829,000 commissions earned on certain agency sales.

### 3. Consolidation adjustments

Adjustments have been made on consolidation as follows:

#### (a) Falconbridge Dominicana, C. por A. (Falcondo)

The ferronickel produced by Falcondo is purchased and marketed by the Company. The earnings of Falcondo include profits on all ferronickel sold to the Company whereas consolidated earnings exclude the profits relating to inventories of ferronickel held by the Company at December 31, for subsequent resale to customers.

#### (b) Fair value adjustments

The difference between the interest in the book value of the net assets of certain consolidated subsidiaries and the carrying value of the investments are accounted for as explained in accounting policy A (ii) on page 22. The investment in consolidated subsidiaries is \$10,245,000 less than the equity in net assets of these subsidiaries at December 31, 1980 (\$11,682,000 at December 31, 1979) and this difference is included in the consolidated balance sheet as follows:

	1980 (000's)	1979 (000's)
Increase (decrease)		
Property, plant and equipment —		
Producing assets		
Plant and equipment	\$ 5,656	\$ 6,007
Accumulated depreciation	5,173	5,029
Land and properties	6,100	6,100
Accumulated depletion	6,505	5,847
Development and preproduction expenditures	(10,069)	(10,664)
Accumulated amortization	(4,321)	(3,818)
Non-producing assets	(4,999)	(6,471)
Investment in associated and other companies	50	50
Other	374	354
Excess of interest in net assets of subsidiaries over carrying value of investments	\$ (10,245)	\$ (11,682)

The depreciation, depletion and amortization of the fair value adjustments included in the consolidated statement of earnings increased the 1980 depreciation and depletion expenses by a net \$144,000 (1979 — \$1,514,000; 1978 — \$34,000) and decreased the amortization of development and preproduction expenditures by \$503,000 in each of the years 1980, 1979 and 1978.

(c) Other inter-company transactions have been adjusted to prevent duplication.

### 4. Interest in consolidated subsidiary companies' undistributed earnings

See note 10, page 33, of the notes to consolidated financial statements.

### 5. Working capital

(i) Working capital includes the estimated realizable value of metal settlements receivable and concentrates in transit of \$40,128,000, or 37% of consolidated accounts and metal settlements receivable, in respect of certain consolidated subsidiaries (1979 — \$74,020,000, or 47%).

(ii) See note 8 B (i) (c), page 32, of the notes to consolidated financial statements for particulars of funds held in trust in respect of Falconbridge Dominicana, C. por A.

### 6. Property, plant and equipment

See note 7, page 30, of the notes to consolidated financial statements.



# 7. Market value of Falconbridge's shareholdings

The market values shown are based on Canadian stock exchanges' closing bid prices at year end. Because of the number of shares held by Falconbridge (representing control of the companies concerned), the amounts that could be realized if these securities were to be sold may be more or less than their indicated quoted market value.

# 8. Wesfrob Mining Division

On January 2, 1980, the dissolution of Wesfrob Mines Limited, a wholly-owned subsidiary was approved. The operation of the mine is continuing as the Wesfrob Mining Division of the Company.

# 9. Corporation Falconbridge Copper

The company's name was changed from Falconbridge Copper Limited on April 29, 1980.

# 10. Segmented data

Although the Company and its subsidiary and significantly influenced companies basically constitute a one industry segment (mining industry) the data contained on Statement 4, page 36, and these notes thereto, present a more detailed review of the various group operations.

- (i) The following table shows the revenues of the consolidated companies in the Falconbridge group on a segmented and product basis by amount and approximate percentage:

	Year ended December 31,					
	1980		1979		1978	
	Amount	%	Amount	%	Amount	%
	(000's)		(000's)		(000's)	
Integrated Nickel and corporate operations:						
Nickel .....	\$206,719	27	\$226,794	29	\$158,640	31
Copper .....	62,385	8	44,352	6	20,722	4
Cobalt .....	40,158	5	44,197	6	17,619	4
Gold .....	3,568	1	2,309		662	
Silver .....	2,396		953		459	
Platinum .....	8,025	1	8,163	1	2,780	1
Palladium .....	3,366	1	2,741		682	
Other revenues .....	29,322	4	25,401	3	10,372	2
	355,939	47	354,910	45	211,936	42
Other operations:						
Ferronickel .....	128,340	17	134,110	17	90,741	18
Copper .....	98,742	13	115,003	15	81,452	16
Zinc .....	24,073	3	41,445	5	32,892	6
Gold .....	31,563	4	22,568	3	15,284	3
Silver .....	41,487	5	51,351	6	18,379	3
Industrial minerals						
Nepheline syenite .....	11,961	2	10,936	1	9,711	2
Silica .....	16,798	2	14,900	2	13,500	3
Aggregates .....	7,056	1	5,227	1	5,112	1
Steel castings .....	23,481	3	20,439	3	14,867	3
Other metals and products .....	18,375	3	18,529	2	14,337	3
	401,876	53	434,508	55	296,275	58
	\$757,815	100	\$789,418	100	\$508,211	100

- (ii) Sales revenues, by product source, of the companies in the Falconbridge group which are accounted for on an equity basis were as follows:

	Year ended December 31,					
	1980		1979		1978	
	Amount	%	Amount	%	Amount	%
	(000's)		(000's)		(000's)	
Gold .....	\$27,968	47	\$30,914	37	\$22,206	51
Lead .....	1,443	2	3,729	4	3,119	7
Silver .....	29,997	51	49,417	59	18,412	42
	\$59,408	100	\$84,060	100	\$43,737	100

- (iii) Consolidated sales revenues by geographical area were as follows:

	Year ended December 31,					
	1980		1979		1978	
	Amount	%	Amount	%	Amount	%
	(000's)		(000's)		(000's)	
Europe .....	\$197,639	26	\$222,712	28	\$194,633	38
U.S.A. ....	282,266	37	249,076	32	166,345	33
Others .....	51,462	7	67,350	8	54,096	11
*Total foreign .....	531,367	70	539,138	68	415,074	82
Canada .....	226,448	30	250,280	32	93,137	18
*World total .....	\$757,815	100	\$789,418	100	\$508,211	100
*Includes sales by domestic operations to foreign customers of .....	\$335,877		\$339,936		\$287,841	



# FALCONBRIDGE NICKEL MINES LIMITED

(iv) Sale of principal metals and products by the consolidated companies in the Falconbridge group were as follows:

	Year ended December 31,					
	1980		1979		1978	
	Consolidated total (000's)	Company share* (000's)	Consolidated total (000's)	Company share* (000's)	Consolidated total (000's)	Company share* (000's)
Integrated Nickel Operations:						
Nickel (pounds) .....	54,159	54,159	84,454	84,454	71,341	71,341
Copper (pounds) .....	53,686	53,686	42,460	42,460	30,027	30,027
Cobalt (pounds) .....	1,386	1,386	1,294	1,294	1,255	1,255
Gold (ounces) .....	5	5	6	6	3	3
Silver (ounces) .....	108	108	79	79	75	75
Platinum (ounces) .....	10	10	16	16	9	9
Palladium (ounces) .....	14	14	20	20	10	10
Other operations:						
Copper (pounds) .....	86,971	49,287	104,459	59,405	108,571	61,142
Ferronickel (pounds of nickel) .....	34,567	22,710	47,628	31,292	43,477	28,564
Iron concentrate (tons) .....	677	677	638	638	560	560
Steel castings (tons, not 000's) .....	5,685	3,924	6,131	4,230	4,869	3,360
Zinc (pounds) .....	50,984	25,594	91,710	46,038	85,337	42,839
Gold (ounces) .....	44	22	48	24	63	32
Silver (ounces) .....	2,011	1,067	2,575	1,349	2,774	1,462
Industrial minerals (tons) —						
Nepheline syenite .....	429	296	430	297	422	291
Silica .....	977	674	920	635	963	664
Aggregates .....	2,950	2,035	2,452	1,692	2,405	1,659
Sales on an agency basis:						
Nickel (pounds) .....	5,612		5,195		3,543	
Copper (pounds) .....	3,666		2,273		2,049	
Cobalt (pounds) .....	391		208			

\*Includes the subsidiary companies' sales prorated on the basis of the Company's percentage ownership.

(v) Sales of metals and products of the companies in the Falconbridge group which are accounted for on an equity basis were as follows:

	Year ended December 31,					
	1980		1979		1978	
	Total (000's)	Company share* (000's)	Total (000's)	Company share* (000's)	Total (000's)	Company share* (000's)
Silver (ounces) .....	1,672	807	2,496	1,204	2,763	1,331
Lead (pounds) .....	3,296	1,596	5,620	2,721	7,521	3,642
Gold (ounces) .....	38	7	75	14	95	18

\*Significantly influenced companies' sales are prorated on the basis of the Company's percentage ownership.

(vi) The following table sets forth certain information respecting metal prices during the periods indicated. The pricing bases used therein are the most representative prices that the Falconbridge group received for its metal products and metals in concentrates:

		Prices at December 31,				Falconbridge (6) average prices during		
Metal	Pricing unit	1980	1980			1979		1978
(U.S. Dollars)								
Refined nickel	pound	\$ 3.24(1)	\$ 3.25		\$ 2.31		\$ 1.94	
Ferronickel	pound	3.21(1)	3.18		2.41		1.82	
Copper	pound	0.86(2)	0.94		0.93		0.64	
Gold	ounce	589.50(3)	611.03		367.61		205.55	
Silver	ounce	15.65(4)	16.00		16.64		5.77	
Platinum	ounce	578.00(5)	678.55		421.47		254.41	
Cobalt	pound	25.00(1)	24.36		29.12		12.25	

(1) Producer prices.

(2) London Metal Exchange cash wirebar prices.

(3) London Metal Exchange final prices.

(4) Prices quoted by Hardy and Harman, New York.

(5) New York Dealer prices.

(6) Includes sales on an agency basis.



- (vii) The following table shows the approximate percentage of revenues, earnings, working capital and property, plant and equipment of the consolidated companies in the Falconbridge group on a segmented basis (see Statement 4, page 36, for corresponding dollar amounts).

	Revenues (a)			Earnings (b)			Working capital			Property, plant and equipment (producing assets)		
	Year ended December 31,			Year ended December 31,			Year ended December 31,			Year ended December 31,		
	1980	1979	1978	1980	1979	1978	1980	1979	1978	1980	1979	1978
	%	%	%	%	%	%	%	%	%	%	%	%
Integrated Nickel Operations	46	44	41	80	56	113	52	60	62	56	58	55
Unallocated corporate .....	1	1			10	(91)						
Corporation Falconbridge												
Copper .....	23	26	26	21	21	129	29	22	18	7	2	4
Falconbridge Dominicana, C. por A. ....	18	20	18	(6)	4	(113)	14	15	17	30	33	35
Indusmin Limited .....	8	7	9	3	3	35	4	3	3	6	6	5
Oamites Mining Company (Proprietary) Limited .....	3	2	3	1	1	7	1	1	1	1	1	1
Westrob Mining Division .....	2	3	3	2	4	9	2	3	2	1	1	2
Other consolidated subsidiaries .....	1	1		(1)	1	11			1		1	
Consolidation adjustments ..	(2)	(4)					(2)	(4)	(4)	(1)	(2)	(2)
Consolidated total .....	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

(a) The 1980 revenues include \$144,984,000, 19% of the consolidated total (1979 — \$191,748,000, 24%; 1978 — \$118,721,000, 23%) from sales by Corporation Falconbridge Copper to a single customer.

(b) Earnings (loss) contributions are after consolidation adjustments, before extraordinary items.

- (viii) Segmented earnings (loss) contributions, working capital, capital expenditures and metal sales for the years 1971 through 1980 are presented in the ten-year review on page 43.



## INVESTMENT IN ASSOCIATED AND OTHER COMPANIES

	Shares		Market value (note 1)	Carrying value		Contribution to earnings for the year ended
	Shares of common stock	Beneficial interest		Shares	Bonds, notes and advances	
			(000's)	(000's)	(000's)	(000's)
<b>December 31, 1980:</b>						
Accounted for on an equity basis (notes 2 and 3):						
Akaiicho Yellowknife Gold Mines Limited	1,198,230	36.7%	\$ 2,996	\$ 208		\$ 6
Giant Yellowknife Mines Limited	824,413	19.2	21,023	3,770		1,150
United Keno Hill Mines Limited	1,195,989	48.4	52,026	16,997		3,718
Total on an equity basis			76,045	20,975		4,874
Accounted for on a cost basis:						
McIntyre Mines Limited (note 8)	175,825	4.8	12,308	10,175		
The Superior Oil Company (note 4)	406,793	1.6	95,922	62,332		341
Thompson-Lundmark Gold Mines Limited	600,000	12.0	1,500	377		
Other companies (note 5)			529			
			\$ 186,304	93,859		5,215
Investments with no quoted market value —						
Western Platinum Limited	2,500,001	25.0		6,214		1,987
Blanket Mine (Private) Limited	9,208	100.0				1,637
Other companies (note 5)				342	\$ 27	749
				\$ 100,415	\$ 27	\$ 9,588
				\$ 100,442		
<b>December 31, 1979:</b>						
Accounted for on an equity basis (notes 2 and 3):						
Akaiicho Yellowknife Gold Mines Limited	1,198,230	36.7%	\$ 1,929	\$ 262		\$ 88
Giant Yellowknife Mines Limited	824,413	19.2	14,839	3,445		1,492
United Keno Hill Mines Limited	1,195,989	48.4	48,288	15,910		10,035
Total on an equity basis			65,056	19,617		11,615
Accounted for on a cost basis:						
Canadian Superior Oil Ltd. (note 4)	294,143	3.2	57,358	17,465		
McIntyre Mines Limited (note 8)	175,825	4.8	11,692	10,175		
The Superior Oil Company (notes 4 and 7)	70,000	0.3	10,779	3,118		49
Thompson-Lundmark Gold Mines Limited	600,000	12.0	330	377		
Other companies (note 5)			237			
			\$ 145,452	50,752		11,664
Investments with no quoted market value —						
Western Platinum Limited	2,500,001	25.0		6,214		3,793
Blanket Mine (Private) Limited	9,208	100.0				1,189
Other companies (note 5)				344	\$ 27	943
				\$ 57,310	\$ 27	\$ 17,589
				\$ 57,337		
<b>December 31, 1978:</b>						
Accounted for on an equity basis (notes 2 and 3):						
Akaiicho Yellowknife Gold Mines Limited	1,198,230	36.7%	\$ 851	\$ 234		\$ 62
Giant Yellowknife Mines Limited	824,413	19.2	9,172	2,447		613
United Keno Hill Mines Limited	1,195,989	48.4	9,568	8,267		1,825
Total on an equity basis			19,591	10,948		2,500
Accounted for on a cost basis:						
Canadian Superior Oil Ltd. (note 4)	294,143	3.2	22,796	17,465		
McIntyre Mines Limited	175,825	7.2	4,308	10,175		88
The Superior Oil Company (note 4)	14,000	0.3	5,462	3,118		40
Thompson-Lundmark Gold Mines Limited	600,000	12.0	177	377		
Other companies (note 5)			144			
			\$ 52,478	42,083		2,628
Investments with no quoted market value —						
Western Platinum Limited (note 6)	2,500,001	25.0		6,214	\$ 5,224	1,008
Blanket Mine (Private) Limited	9,208	100.0				785
Other companies (note 5)				344	27	330
				\$ 48,641	\$ 5,251	\$ 4,751
				\$ 53,892		

- Notes: 1. The market values shown are based on Canadian and United States of America stock exchanges' closing bid prices at year end. Because of the number of shares involved the amounts that could be realized if these securities were to be sold may be more or less than their indicated quoted market value.
2. The carrying value represents the cost of the investments less amounts written off, and also reflects the interest in earnings of certain significantly influenced companies on an equity basis (i.e. the investments are carried on the balance sheet at cost plus proportionate share of undistributed earnings).
3. Interest in equity accounted for companies' undistributed earnings — see note 10, page 33, of the notes to consolidated financial statements.
4. See note 2, page 28, of the notes to consolidated financial statements.
5. Representing investments, at various percentage ownerships, in a number of companies.
6. The income debentures (\$5,224,000) have been retired by Western Platinum Limited.
7. Stock split 5 for 1 in 1979.
8. Beneficial interest reduced in 1979. The Company sold its rights to subscribe for additional shares.



# FALCONBRIDGE NICKEL MINES LIMITED

## TEN-YEAR REVIEW (unaudited)

		1980	1979	1978	1977	1976	1975	1974	1973	1972	1971
REVENUES AND EARNINGS (LOSS) (000's)	Revenues	\$ 757,815	789,418	508,211	381,684	483,480	409,888	443,508	426,834	266,851	204,407
	Earnings (loss) before extraordinary item	\$ 71,422	110,561	5,818	(28,786)	14,591	2,937	31,996	49,533	5,240	17,255
	Per common share	\$ 13.04	21.01	0.22	(6.14)	2.94	0.59	6.46	10.00	1.06	3.48
	Extraordinary item	\$ 37,700	20,000		20,238				7,100	(49,456)	
	Per common share	\$ 7.57	4.02		4.08				1.43	(9.98)	
EARNINGS (LOSS) CONTRIBUTIONS — after consolidation adjustments, before extraordinary items (000's)	Alminex Limited (note 8)	\$			3,776	3,424	2,952	2,922	2,040	1,263	
	Corporation Falconbridge Copper (note 3)	\$ 15,152	23,277	7,498	2,913	1,637	198	3,981	12,295	3,058	
	Falconbridge Dominicana, C. por A.	\$ (4,516)	4,508	(6,596)	2,788	8,834	5,689	3,309	9,933	503	
	Giant Yellowknife Mines Limited	\$ 1,150	1,492	613	368	(137)	(43)	450	717	181	
	Indusmin Limited (note 6)	\$ 2,398	2,714	2,027	1,251	2,019	2,821	1,307	1,287	1,290	
	Integrated Nickel Operations	\$ 57,372	62,213	6,558	(21,496)	4,860	(5,271)	17,779	19,487	5,180	
	Oamites Mining Company (Proprietary) Limited	\$ 909	1,360	405	(336)	128	739	1,433	2,406	205	
	United Keno Hill Mines Limited	\$ 3,718	10,035	1,825	1,168	841	1,422	2,946	1,159	(350)	
	Westrob Mining Division (note 9)	\$ 1,503	4,597	551	(2,211)	(337)	(1,361)	539	2,753	(2,490)	
	Unallocated corporate (note 5)	\$ (5,187)	(453)	(7,165)	(16,217)	(5,779)	(4,251)	(2,887)	(3,529)	(3,732)	
	Others (note 6)	\$ (1,077)	818	102	(790)	(899)	42	217	985	132	
	Earnings (loss) before extraordinary item	\$ 71,422	110,561	5,818	(28,786)	14,591	2,937	31,996	49,533	5,240	
		\$1,159,094	1,069,371	868,525	889,781	737,176	750,394	754,950	725,129	645,681	687,760
FINANCIAL POSITION (000's)	Working capital —										
	Integrated Nickel Operations (note 7)	\$ 188,414	228,181	158,825	174,339	85,509	101,731	139,959	117,994	72,487	68,899
	Falconbridge Dominicana, C. por A. (note 1)	\$ 52,144	56,030	44,578	42,785	37,410	33,703	28,941	36,214	25,680	26,601
	Corporation Falconbridge Copper (note 3)	\$ 106,983	85,194	45,525	32,696	24,409	20,768	18,840	25,776	14,044	15,340
	Consolidated total	\$ 362,119	380,883	254,784	255,592	155,131	167,017	198,263	188,052	114,813	119,242
	Property, plant and equipment (net) —										
	Producing	\$ 390,511	364,636	367,601	304,768	255,217	283,611	282,803	303,767	330,965	160,132
	Non-producing	\$ 115,620	105,743	88,913	150,356	167,654	143,178	137,504	105,021	86,507	312,799
	Long-term debt	\$ 285,801	287,170	295,003	291,394	223,715	255,121	274,616	288,493	301,921	293,336
SHAREHOLDERS' DATA	Shareholders' equity (000's)	\$ 506,141	495,921	386,201	384,755	322,440	312,736	314,643	292,556	241,582	290,094
	Amount per common share	\$ 101.36	84.40	62.57	62.46	65.01	63.11	63.55	59.14	48.95	58.65
	Dividends paid per common share	\$ 3.50	3.00		0.50	1.00	1.00	2.00	1.00	1.00	2.75
	Number of common shares outstanding at end of year (note 2) (000's)	5,025	5,025	5,024	5,010	5,009	5,006	5,001	5,001	5,000	5,000
	Number of common shareholders	5,908	7,362	8,351	9,150	9,788	10,732	11,205	11,104	12,254	12,178
	Toronto Stock Exchange quotes, High (TSE)	\$ 161.00	91.75	36.25	39.75	45.00	38.25	69.75	86.25	99.87	156.00
	Low	\$ 79.00	32.00	16.63	16.50	29.25	24.25	23.00	57.00	50.50	56.75
	Close	\$ 102.50	91.50	32.50	20.75	35.50	24.25	24.50	62.50	65.00	82.00
	Volume of shares traded on TSE (000's)	2,820	2,150	1,423	604	564	783	623	848	920	704
	Preference shares (000's)	\$	75,000	75,000	75,000						
EXPLORATION, RESEARCH AND DEVELOPMENT (000's)	Exploration	\$ 28,284	14,297	7,662	9,726	8,325	7,826	11,432	8,895	6,768	10,246
	Research and development	\$ 6,636	3,960	3,086	3,844	3,769	4,100	4,382	3,304	2,546	3,311
CAPITAL EXPENDITURES (000's)	Expenditures on property, plant, equipment, development and preproduction —										
	Integrated Nickel Operations (note 7)	\$ 64,946	37,008	30,429	63,762	33,201	46,307	39,432	24,589	43,563	60,137
	Falconbridge Dominicana, C. por A.	\$ 3,234	1,022	834	3,096	1,523	2,153	5,467	2,147	10,308	68,592
	Corporation Falconbridge Copper (note 3)	\$ 9,306	10,489	8,543	7,720	10,775	8,823	17,117	12,577	6,882	8,347
	Consolidated total	\$ 90,995	58,352	42,964	81,701	50,252	62,706	67,444	42,975	67,359	146,382
METAL SALES (000's pounds)	Integrated Nickel Operations —										
	Nickel	54,159	84,454	71,341	32,047	80,176	61,524	89,464	99,408	89,665	85,864
	Copper	53,686	42,460	30,027	42,677	34,076	40,713	53,981	53,725	56,464	60,985
	Falconbridge Nickel Mines Limited —										
	Nickel in ferronickel (note 4)	34,567	47,628	43,477	43,394	59,781	50,270	73,828	67,644		
	Corporation Falconbridge Copper (note 3) —										
	Copper	69,172	83,547	87,555	92,369	82,939	77,503	56,911	80,935	80,870	62,012
ORE RESERVES (000's tons)	Zinc	50,984	91,710	85,337	89,032	73,430	73,767	30,838	37,950	38,218	14,569
	Falconbridge Nickel Mines Limited	78,649	75,771	78,808	80,670	83,405	89,099	90,578	92,798	92,646	99,933
	Falconbridge Dominicana, C. por A.	66,000	68,700	68,500	70,000	72,500	63,700	66,000	68,500	70,800	72,300
	Corporation Falconbridge Copper (note 3)	6,725	8,565	9,235	8,653	7,187	9,234	11,004	11,287	11,724	11,543

- Notes:
1. See note 8, page 31, of the notes to consolidated financial statements.
  2. Includes shares held by consolidated subsidiaries, see note 9, page 32, of the notes to consolidated financial statements.
  3. This company was formed through an amalgamation of a number of companies in 1971. For comparative purposes the figures have been presented as if the amalgamation had been in effect in 1971. The company's name was changed from Falconbridge Copper Limited on April 29, 1980.
  4. Ferronickel sales to customers, see note 3, page 38, of the notes to statement of segmented information.
  5. Before interest in earnings of equity accounted for companies.
  6. For comparative purposes the 1972 to 1975 figures have been restated to combine the contribution of Indusmin Limited and Fahrallloy Canada Limited. In 1976, Fahrmet Limited, a subsidiary of Indusmin Limited, acquired the operating assets of Fahrallloy Canada Limited.
  7. Includes both the Integrated Nickel Operations and Company's corporate operations, see note 2, page 38, of the notes to statement of segmented information.
  8. Investment sold in 1977.
  9. See note 8, page 39, of the notes to statement of segmented information.



# FALCONBRIDGE NICKEL MINES LIMITED

## SUMMARY OF 1980, 1979 AND 1978 CONSOLIDATED RESULTS BY QUARTERS

(Unaudited — 000's omitted)

	1980				
	Three months ended (note 4)				
	March 31	June 30	Sept. 30	Dec. 31	Year
<b>Metal sales (pounds):</b>					
Integrated Nickel Operations —					
Nickel .....	19,807	10,369	10,373	13,610	54,159
Copper .....	14,560	13,644	12,066	13,416	53,686
Cobalt .....	403	346	362	275	1,386
Corporation Falconbridge Copper —					
Copper .....	19,310	18,366	16,064	15,432	69,172
Zinc .....	19,257	15,371	12,352	4,004	50,984
Falconbridge Nickel Mines Limited (note 1) —					
Ferronickel (sales to customers) .....	12,943	9,966	3,586	8,072	34,567
<b>Inventory of finished nickel — all forms (pounds) .....</b>	<b>29,990</b>	<b>42,377</b>	<b>50,408</b>	<b>45,833</b>	<b>45,833</b>
<b>Earnings:</b>					
Revenues .....	\$ 240,017	\$ 183,163	\$ 156,272	\$ 178,363	\$ 757,815
Interest, investment and other income .....	13,071	11,418	10,633	11,932	47,054
	<u>253,088</u>	<u>194,581</u>	<u>166,905</u>	<u>190,295</u>	<u>804,869</u>
Costs other than the undermentioned .....	142,044	120,382	113,654	135,133	511,213
Depreciation, depletion, development and preproduction written off .....	13,371	13,804	13,921	13,035	54,131
Exploration, research and process development .....	6,134	9,112	9,099	10,575	34,920
Interest and amortization of debt expenses .....	9,474	10,837	9,285	9,516	39,112
Income and mining taxes .....	41,127	17,159	10,631	11,183	80,100
Minority interest in earnings of subsidiaries .....	6,923	4,461	1,635	952	13,971
	<u>219,073</u>	<u>175,755</u>	<u>158,225</u>	<u>180,394</u>	<u>733,447</u>
Earnings for the period before extraordinary item .....	34,015	18,826	8,680	9,901	71,422
Extraordinary item (note 3) .....	37,700				37,700
Earnings for the period .....	71,715	18,826	8,680	9,901	109,122
Dividend requirement on preference shares .....	1,695	1,716	1,464	1,600	6,475
Earnings applicable to common shares .....	<u>\$ 70,020</u>	<u>\$ 17,110</u>	<u>\$ 7,216</u>	<u>\$ 8,301</u>	<u>\$ 102,647</u>
Earnings per common share:					
Before extraordinary item .....	\$ 6.49	\$ 3.44	\$ 1.45	\$ 1.66	\$13.04
For the period .....	<u>\$14.06</u>	<u>\$ 3.44</u>	<u>\$ 1.45</u>	<u>\$ 1.66</u>	<u>\$20.61</u>
<b>Earnings (loss) contributions:</b>					
Corporation Falconbridge Copper .....	\$ 4,824	\$ 3,670	\$ 3,566	\$ 3,092	\$ 15,152
Falconbridge Dominicana, C. por A. ....	2,908	813	(4,005)	(4,232)	(4,516)
Giant Yellowknife Mines Limited .....	895	613	(67)	(291)	1,150
Indusmin Limited .....	555	817	322	704	2,398
Oamites Mining Company (Proprietary) Limited .....	942	143	274	(450)	909
United Keno Hill Mines Limited .....	659	967	1,811	281	3,718
Other controlled companies .....	163	92	(418)	(914)	(1,077)
Total .....	10,946	7,115	1,483	(1,810)	17,734
Wesfrob Mining Division .....	481	164	359	499	1,503
Unallocated corporate, net (notes 2 and 6) .....	(29)	(1,642)	(2,397)	(1,119)	(5,187)
Integrated Nickel Operations, net of allocated corporate costs (note 6) .....	22,617	13,189	9,235	12,331	57,372
Earnings for the period before extraordinary item .....	34,015	18,826	8,680	9,901	71,422
Extraordinary item (note 3) .....	37,700				37,700
Earnings for the period .....	71,715	18,826	8,680	9,901	109,122
Dividend requirement on preference shares .....	1,695	1,716	1,464	1,600	6,475
Earnings applicable to common shares .....	<u>\$ 70,020</u>	<u>\$ 17,110</u>	<u>\$ 7,216</u>	<u>\$ 8,301</u>	<u>\$ 102,647</u>

### Notes:

- See note 3 (a), page 38, of the notes to statement of segmented information.
- Unallocated corporate shown on Statement 4, page 36, for 1980, is after reflecting the interest in earnings of significantly influenced companies, which are accounted for on the equity basis (Giant Yellowknife Mines Limited \$1,150,000; United Keno Hill Mines Limited \$3,718,000; and Akaitcho Yellowknife Gold Mines Limited, included above with "other controlled companies", \$6,000).
- See note 2, page 28, of the notes to consolidated financial statements.



1979				
Three months ended (note 5)				
March 31	June 30	Sept. 30	Dec. 31	Year
26,371	29,068	13,567	15,448	84,454
9,728	8,635	8,905	15,192	42,460
375	367	213	339	1,294
21,272	21,630	18,387	22,258	83,547
22,336	26,009	23,430	19,935	91,710
10,590	10,908	10,762	15,368	47,628
33,121	24,576	23,421	27,217	27,217
\$ 172,019	\$ 198,179	\$ 173,020	\$ 246,200	\$ 789,418
5,510	7,723	10,829	15,342	39,404
177,529	205,902	183,849	261,542	828,822
120,771	130,109	109,680	142,659	503,219
10,827	10,492	10,649	10,664	42,632
3,097	4,596	4,654	5,910	18,257
8,553	8,713	9,053	9,770	36,089
13,408	21,894	19,967	35,729	90,998
3,771	3,641	5,923	13,731	27,066
160,427	179,445	159,926	218,463	718,261
17,102	26,457	23,923	43,079	110,561
4,129	8,499	2,401	4,971	20,000
21,231	34,956	26,324	48,050	130,561
1,385	1,402	1,464	1,660	5,911
\$ 19,846	\$ 33,554	\$ 24,860	\$ 46,390	\$ 124,650
\$ 3.16	\$ 5.03	\$ 4.51	\$ 8.31	\$ 21.01
\$ 3.99	\$ 6.73	\$ 5.00	\$ 9.31	\$ 25.03

\$ 4,115	\$ 3,760	\$ 4,585	\$ 10,817	\$ 23,277
(988)	(990)	1,665	4,821	4,508
90	300	363	739	1,492
160	813	963	778	2,714
492	217	224	427	1,360
492	1,607	2,372	5,564	10,035
101	260	392	65	818
4,462	5,967	10,564	23,211	44,204
672	577	1,153	2,195	4,597
73	(845)	835	(516)	(453)
11,895	20,758	11,371	18,189	62,213
17,102	26,457	23,923	43,079	110,561
4,129	8,499	2,401	4,971	20,000
21,231	34,956	26,324	48,050	130,561
1,385	1,402	1,464	1,660	5,911
\$ 19,846	\$ 33,554	\$ 24,860	\$ 46,390	\$ 124,650

1978				
Three months ended				
March 31	June 30	Sept. 30	Dec. 31	Year
13,746	20,977	15,800	20,818	71,341
6,647	7,096	6,381	9,903	30,027
389	254	236	376	1,255
22,196	20,522	22,831	22,006	87,555
19,060	23,550	20,219	22,508	85,337
5,919	12,344	8,964	16,250	43,477
78,487	65,340	56,450	44,009	44,009
\$ 93,012	\$ 129,508	\$ 123,907	\$ 161,784	\$ 508,211
3,160	2,437	2,814	4,523	12,934
96,172	131,945	126,721	166,307	521,145
78,123	105,683	103,329	122,792	409,927
9,534	9,516	9,857	12,006	40,913
2,601	2,392	2,718	3,037	10,748
7,874	8,249	8,234	9,333	33,690
391	2,689	7,053	2,488	12,621
238	1,352	2,441	3,397	7,428
98,761	129,881	133,632	153,053	515,327
(2,589)	2,064	(6,911)	13,254	5,818
(2,589)	2,064	(6,911)	13,254	5,818
1,052	1,143	1,198	1,339	4,732
\$ (3,641)	\$ 921	\$ (8,109)	\$ 11,915	\$ 1,086
(73¢)	18¢	\$ (1.63)	\$ 2.40	22¢
(73¢)	18¢	\$ (1.63)	\$ 2.40	22¢

\$ 471	\$ 1,128	\$ 3,044	\$ 2,855	\$ 7,498
(1,144)	(1,007)	(3,406)	(1,039)	(6,596)
106	181	208	118	613
118	642	616	651	2,027
(87)	182	(17)	327	405
445	329	226	825	1,825
(23)	(111)	(36)	272	102
(114)	1,344	635	4,009	5,874
(127)	247	(106)	537	551
(1,689)	(1,838)	(2,440)	(1,198)	(7,165)
(659)	2,311	(5,000)	9,906	6,558
(2,589)	2,064	(6,911)	13,254	5,818
(2,589)	2,064	(6,911)	13,254	5,818
1,052	1,143	1,198	1,339	4,732
\$ (3,641)	\$ 921	\$ (8,109)	\$ 11,915	\$ 1,086

The downturn in the last half of the year mainly reflected higher unit production costs and a decrease in the volume of nickel sold. Escalating metal prices throughout 1979 are reflected in the quarterly results. Most of the excess refined nickel inventory was sold in the first six months of 1979. Sales were lower in the third and fourth quarters and in better balance with production.

6. See note 2, page 38, of the notes to statement of segmented information.



## FALCONBRIDGE NICKEL MINES LIMITED

### Impact of inflation — financial reporting and changing prices (unaudited)

In recent years, there has been growing concern over the impact of inflation on business. Various accounting and regulatory bodies have suggested alternative methods by which inflation effects could be measured and reported. Suggested approaches have included specific and general price indexing, current valuing of assets and liabilities and combinations thereof. There has been no agreement as to which method would portray the effects of inflation most effectively.

In previous years, Falconbridge reported the estimated current replacement cost of inventories and productive capacity of property, plant and equipment; this information being required for its United States Securities and Exchange Commission, Form 10-K filing. In Canada, an exposure draft entitled "Current Cost Accounting" was issued by the Accounting Research Committee of the Canadian Institute of Chartered Accountants and is presently under study, but has not been adopted, pending review of submissions by interested parties.

In 1979, the Financial Accounting Standards Board (FASB) issued Statement No. 33, "Financial Reporting and Changing Prices" (FAS 33), requiring disclosure of income statement data after allowing for changes in the Consumer Price Index and specific current costs affecting inventories and fixed assets. The statement exempted companies in the extractive industry from presenting current cost data for unprocessed natural resources because of problems unique to the industry.

After an in-depth study and consideration of industry representations, the FASB subsequently supplemented the original statement with FAS 39, requiring the extractive industry to substantially comply with the provisions of FAS 33 and to supply additional data on ore reserves, production and market prices.

In the absence of Canadian recommendations, Falconbridge is presenting inflation adjusted and current cost information generally in accordance with the guidelines of FAS 33 and 39. No comparisons of these adjusted costs were made with a prediction of the current worth of the net amount of cash expected to be recoverable from the use or sale of the assets because such a comparison would involve the use of highly subjective estimates and forecasts. This disclosure will provide an indication of the effects of inflation on Falconbridge and will facilitate comparisons with other companies. Interpretations accompany the adjusted amounts and further discussion is provided in "Management's discussion and analysis of financial condition and results of operations", page 18.

Certain caveats must be considered when reviewing the supplementary data. The current cost amounts are based on judgments by management involving choices of methods within the guidelines of FAS 33. As such the estimates and judgments may differ from those chosen by other companies. The general inflation and current cost restatement only includes the effects of inflation on inventories, fixed assets and net monetary items. The adjustments to reported earnings also do not reflect any related income tax effects pertaining to timing differences, allocations or other factors. The disclosure of current cost amounts does not necessarily indicate Falconbridge's intention to replace existing assets.

The following supplementary data is intended to reflect the effects of inflation on Falconbridge's business. Generally, the most significant impact of inflation is on inventories and fixed assets. The earnings statement items which are affected by cost changes in inventories and fixed assets are cost of sales and depreciation, depletion and amortization. It is therefore these items which have been adjusted. Two inflation measurement concepts are employed — constant dollars (general inflation) and current costs. In addition, because the value of monetary assets and liabilities decrease during inflationary periods this effect is reported as a change in purchasing power of net monetary items held.

#### A. 1. 1980 earnings adjusted for changing prices

##### (a) EARNINGS FOR THE YEAR BEFORE EXTRAORDINARY ITEM ADJUSTED FOR THE EFFECTS OF GENERAL INFLATION (CONSTANT DOLLARS)

	Integrated Nickel and corporate operations (000's)	Other operations (000's)	Consolidated total (000's)
Earnings as reported	\$ 57,059	\$ 14,363	\$ 71,422
Adjustments to restate historical costs for the effect of general inflation (average 1980 dollars)			
Cost of sales (increase)	(710)	(3,283)	(3,993)
Depreciation, depletion and amortization (increase)	(23,254)	(27,738)	(50,992)
Earnings adjusted for general inflation	<u>\$ 33,095</u>	<u>\$ (16,658)</u>	<u>\$ 16,437</u>

The purchasing power of the dollar varies with inflation and reporting dollars of varying purchasing power does not yield comparative results. The constant dollar method restates historical data in terms of a single unit of measure. To arrive at a constant unit of measure, dollars are made comparable by allowing for the effects of general inflation as measured by the Canadian Consumer Price Index, base 1971 = 100 (CPI). The CPI is a measure of changing price levels for selected goods and services which are intended to be representative of all economic transactions. As such, adjusting for general inflation does not necessarily indicate the effect of specific price changes on Falconbridge's business.

Depreciation, depletion and amortization and cost of sales calculations are made by reference to fixed asset and inventory values derived by applying the appropriate indexing factors. The resulting amounts represent an approximation of charges to income had the related expenditures been made in 1980 dollars.



(b) EARNINGS FOR THE YEAR BEFORE EXTRAORDINARY ITEM ADJUSTED TO REFLECT CURRENT COSTS

	Integrated Nickel and corporate operations (000's)	Other operations (000's)	Consolidated total (000's)
Earnings as reported	\$ 57,059	\$ 14,363	\$ 71,422
Adjustments to restate historical costs to current costs			
Cost of sales (increase)/decrease	1,080	(22,636)	(21,556)
Depreciation, depletion and amortization (increase)	(21,888)	(41,741)	(63,629)
Earnings adjusted for changes in costs	<u>\$ 36,251</u>	<u>\$ (50,014)</u>	<u>\$ (13,763)</u>

The concept of current costs reflects cost increases by considering specific price changes in inventories and fixed assets. Current costs are defined as the cost of purchasing goods or the resources required to produce the goods concerned in the case of inventories, and as the cost of acquiring the same service potential in the case of fixed assets at December 31, 1980. Service potential is measured by reference to physical output capacity and unit operating costs. Current costs therefore resemble replacement costs except that due allowance is made for the increased service potential of the replacing assets. The current cost amounts derived for depreciation, depletion and amortization and cost of sales represent the charges to income based on the estimated current costs of the related assets.

The adjustment to cost of sales on a current cost basis represents the additional cost of replacing inventories at the date of sale compared with the historical costs. The adjustment for depreciation, depletion and amortization represents the difference between the current cost of assets consumed in the year and the charges recorded in the historical cost financial statements.

*The Integrated Nickel Operations' cost of sales are increased by \$710,000 on a constant dollar basis and decreased by \$1,080,000 on a current cost basis. The small differences result mainly from using the last-in, first-out (LIFO) method of valuing metals inventories for historical cost purposes. Under the LIFO method, the latest production costs which are charged to historical cost earnings are substantially the same as calculated under the constant dollar and current cost methods. Other operations' cost of sales are adjusted by \$22,636,000 to reflect current cost of sales. This increase, which is significantly higher than the \$3,283,000 increase under the constant dollar method, is mainly attributable to high oil prices and other production costs which have escalated more than the general inflation rate as indicated by the CPI.*

*As anticipated, depreciation, depletion and amortization charges adjusted for both constant dollar and current cost methods are significantly higher. The Integrated Nickel Operations' charges are increased by \$23,254,000 on a constant dollar basis and by \$21,888,000 on a current cost basis. The other operations' current cost depreciation, depletion and amortization increase of \$41,741,000 is significantly higher than the \$27,738,000 increase under the constant dollar method because the CPI has not increased as much as the current cost of the related assets. The depreciation, depletion and amortization adjustments reflect the significant increased cost of the related assets as noted in part 3 below.*

2. Purchasing power gain on net monetary items during 1980

	Integrated Nickel and corporate operations (000's)	Other operations (000's)	Consolidated total (000's)
Gain (loss) from decline in purchasing power of net amounts owed (held) (average 1980 dollars)	<u>\$ 9,358</u>	<u>\$ (1,737)</u>	<u>\$ 7,621</u>

Gains or losses from the decline in the purchasing power of net monetary items reflect the declining value of the dollar by recognizing changes in purchasing power during inflationary periods. Monetary assets include cash and receivables and monetary liabilities include current liabilities and long-term debt.

*During the year, the Integrated Nickel Operations had more monetary liabilities than monetary assets and consequently recorded a purchasing power gain of \$9,358,000. Because the other operations' monetary assets exceeded monetary liabilities, a purchasing power loss of \$1,737,000 resulted. The net gain of \$7,621,000 is not included in the adjusted earnings reported under part 1 above.*



# FALCONBRIDGE NICKEL MINES LIMITED

## 3. Current cost amounts of inventories (metals and supplies) and property, plant, equipment, development and preproduction expenditures at December 31, 1980

	Integrated Nickel and corporate operations (000's)	Other operations (000's)	Consolidated total (000's)
Inventories —			
Metals			
Historic cost .....	\$ 85,626*	\$ 59,758*	\$ 145,384
Current cost .....	\$ 139,561*	\$ 61,028*	\$ 200,589
* Adjusted for ferronickel held by the Company for resale as agent for its subsidiary, Falconbridge Dominicana, C. por A.			
Supplies			
Historic cost .....	\$ 18,333	\$ 32,590	\$ 50,923
Current cost .....	\$ 20,519	\$ 35,280	\$ 55,799
Property, plant and equipment —			
Historic cost .....	\$ 430,811	\$ 322,448	\$ 753,259
Accumulated depreciation and depletion .....	238,096	188,702	426,798
Net book value .....	\$ 192,715	\$ 133,746	\$ 326,461
Current cost .....	\$ 940,566	\$ 999,169	\$ 1,939,735
Accumulated depreciation and depletion .....	570,030	558,363	1,128,393
Net book value .....	\$ 366,847	\$ 444,495	\$ 811,342
Development and preproduction expenditures, net —			
Historic cost .....	\$ 93,842	\$ 85,828	\$ 179,670
Current cost .....	\$ 158,276	\$ 228,547	\$ 386,823

Current cost amounts of inventories and property, plant, equipment, development and preproduction expenditures represent the current costs of assets owned. For property, plant, equipment, development and preproduction expenditures these amounts differ from replacement costs reported in previous years which measured the cost of assets that would replace existing assets. To arrive at current cost of inventories, the most recent production costs were used for metal inventories and replacement cost for supplies inventories. Estimates of current costs to construct or purchase or costs per unit of production were used to arrive at the current cost of property, plant, equipment, development and preproduction expenditures and depreciation, depletion and amortization. Indices published by governmental and private organizations were applied to the historical cost of recently acquired assets.

The current cost of the Integrated Nickel Operations' metals inventories are \$139,561,000 or \$53,935,000 higher than historical cost. As noted previously, under the LIFO method of valuing metals inventories, latest production costs are charged to earnings, resulting in older, lower costs remaining in historical cost metals inventories. The inventories of the other operations do not change substantially because they use the first-in, first-out method of valuing metals inventories, which leaves the latest production costs remaining in historical cost inventory. Supplies inventories increased by only \$4,876,000 to \$55,799,000 on a current cost basis, because they turn over frequently during the year. Current costs of property, plant and equipment of \$1,939,735,000 are two and one half times higher than the historical costs. The current costs of the other operations are proportionately higher than those of the Integrated Nickel Operations, largely due to the age of assets and their geographical location.

## 4. Increases in current cost amounts of inventories (metals and supplies) and property, plant, equipment, development and preproduction expenditures during 1980

	Integrated Nickel and corporate operations (000's)	Other operations (000's)	Consolidated total (000's)
Inventories —			
Increase in current cost .....	\$ 19,420	\$ 10,345	\$ 29,765
Effect of increase in general price level .....	12,021	8,212	20,233
Excess of increase in current costs over increase in the general price level .....	\$ 7,399	\$ 2,133	\$ 9,532
Property, plant, equipment, development and preproduction expenditures, net —			
Increase in current cost .....	\$ 55,595	\$ 89,142	\$ 144,737
Effect of increase in general price level .....	51,996	65,667	117,663
Excess of increase in current costs over increase in the general price level .....	\$ 3,599	\$ 23,475	\$ 27,074



Increases in current costs are reported to indicate specific price changes during the current year. In addition, the effects of these specific price changes are compared to the general rate of inflation. Current costs exceeded the effects of general inflation by \$36,606,000 (inventories \$9,532,000 and property, plant, equipment, development and preproduction expenditures \$27,074,000) indicating that specific costs escalated more than the general rate of inflation as measured by the CPI in 1980.

**B. Five-year comparison of selected supplementary financial data adjusted for the effects of changing prices in average 1980 dollars**

	Years ended December 31,				
	1980 (000's)	1979 (000's)	1978 (000's)	1977 (000's)	1976 (000's)
Revenues .....	\$ 757,815	\$ 869,516	\$ 610,897	\$ 499,892	\$ 683,821
Historical cost information adjusted for general inflation					
Earnings for the year before extraordinary item .....	\$ 16,437				
Earnings for the year before extraordinary item, per common share .....	\$ 2.00				
Net assets at year end .....	\$ 1,060,768	"Data			
Current Cost information					
Loss for the year before extraordinary item .....	\$ (13,763)		not		
Loss for the year before extraordinary item, per common share .....	\$ (4.06)			readily	
Excess of increase in specific prices over increase in the general price level .....	\$ 36,606				available"
Net assets at year end .....	\$ 1,198,502				
Gain from decline in purchasing power of net amounts owed .....	\$ 7,621				
Cash dividends paid per common share .....	\$ 3.50	\$ 3.30		65¢	\$ 1.41
Market price per common share at year end .....	\$ 97.63	\$ 97.52	\$ 37.92	\$ 26.31	\$ 49.12
Average Canadian Consumer Price Index (base 1971 = 100) .....	210.6	191.2	175.2	160.8	148.9

The above data is a summary of selected financial information presented in average 1980 dollars. Previous year information has been adjusted by the CPI to make it comparable to current year data. The earnings and net assets reported have been expressed in average 1980 dollars and therefore differ from amounts reported elsewhere.

**Comparative historical cost data:**

	Years ended December 31,				
	1980 (000's)	1979 (000's)	1978 (000's)	1977 (000's)	1976 (000's)
Revenues .....	\$ 757,815	\$ 789,418	\$ 508,211	\$ 381,684	\$ 483,480
Earnings (loss) for the year before extraordinary item .....	\$ 71,422	\$ 110,561	\$ 5,818	\$ (28,786)	\$ 14,591
Earnings (loss) for the year before extraordinary item, per common share .....	\$ 13.04	\$ 21.01	\$ 0.22	\$ (6.14)	\$ 2.94
Net assets at year end .....	\$ 506,141	\$ 420,921	\$ 311,201	\$ 309,755	\$ 322,440
Cash dividend paid per common share .....	\$ 3.50	\$ 3.00		\$ 0.50	\$ 1.00
Market price per common share at year end .....	\$ 102.50	\$ 91.50	\$ 32.50	\$ 20.75	\$ 35.50



# FALCONBRIDGE NICKEL MINES LIMITED

## C. Supplementary quantity and price information

Supplementary quantity and price information:

	Integrated Nickel Operations	Westrob Mining Division	Corporation Falconbridge Copper		Falconbridge Dominicana, C. por A.		Indusmin Limited (consolidated)		Damites Mining Company (Proprietary) Limited		Kiena Gold Mines Limited		New Quebec Reglan Mines Limited	
	Total	Total	Total	Company Share (50.2%)	Total	Company Share (65.7%)	Total	Company Share (69%)	Total	Company Share (74.9%)	Total	Company Share (68.3%)	Total	Company Share (68.4%)
<b>1980:</b>														
<b>Proven and probable ore reserves at the end of the year (note) —</b>														
<b>Tons (000's)</b>	78,649	7,150	6,725**	3,376	66,000	43,362			1,927	1,443	2,500	1,707	16,050	10,978
<b>Grades (principal metals/ products only):</b>														
Nickel (%)	1.50				1.64				1.07				2.58	0.71
Copper (%)	0.78	0.31	**											
Zinc (%)			**											
Iron (%)		48.73												
Gold (ounce per ton)			**								0.23			
Nepheline syenite (tons)							18,000	12,420						
Silica (tons)							29,000	20,010						
Aggregates (tons)							113,000	77,970						
<b>Ore milled (thousands of tons)</b>	3,262	1,098	1,894	951	1,918	1,260			628	470				
<b>Principal metals/products produced (000's):</b>														
Nickel (pounds)	66,495*				36,046	23,682								
Copper (pounds)	53,339*	4,904	69,172	34,724					12,892	9,656				
Cobalt (pounds)	1,394*													
Zinc (pounds)			50,984	25,594										
Lead (pounds)			4,059	2,038										
Iron (tons)		677												
Gold (ounces)		2	44	22					229	172				
Silver (ounces)		71	1,782	895										
Nepheline syenite (tons)							430	297						
Silica (tons)							875	604						
Aggregates (tons)							2,437	1,682						
Feldspar (tons)							171	118						

### Average selling prices:

See note 10 (vi) of the notes to the statement of segmented information, page 40.

\*Metals in matte produced from Sudbury ores.

\*\*Includes 2,970,000 tons of ore with average grades of 2.98% copper and 2.05% zinc; and 3,755,000 tons grading 1.71% copper and 0.027 ounce of gold per ton.

## 1979:

### Proven and probable ore reserves at the end of the year (note) —

<b>Tons (000's)</b>	75,771	8,249	8,565**	4,300	68,700	45,136			1,885	1,412	2,500	1,707	16,050	10,978
<b>Grades (principal metals/ products only):</b>														
Nickel (%)	1.47				1.64				1.13				2.58	0.71
Copper (%)	0.80	0.27	**											
Zinc (%)			**											
Lead (%)			**											
Iron (%)		42.55	**											
Gold (ounce per ton)			**								0.23			
Silver (ounces per ton)			**											
Nepheline syenite (tons)							19,000	13,110						
Silica (tons)							30,000	20,700						
Aggregates (tons)							116,000	80,040						
<b>Ore milled (thousands of tons)</b>	2,762	1,116	1,900	954	3,363	2,209			634	475				
<b>Principal metals/products produced (000's):</b>														
Nickel (pounds)	56,122*				55,362	36,737								
Copper (pounds)	43,387*	7,174	83,547	41,941					13,738	10,290				
Cobalt (pounds)	1,336*													
Zinc (pounds)			91,710	46,038										
Lead (pounds)			4,551	2,285										
Iron (tons)		638												
Gold (ounces)		3	48	24					229	172				
Silver (ounces)		95	2,346	1,178										
Nepheline syenite (tons)							417	288						
Silica (tons)							1,029	710						
Aggregates (tons)							2,663	1,837						
Feldspar (tons)							188	130						

### Average selling prices:

See note 10 (vi) of the notes to the statement of segmented information, page 40.

\*Metals in matte produced from Sudbury ores.

\*\*Includes 3,572,000 tons of ore with average grades of 2.99% copper and 2.13% zinc; 4,675,000 tons grading 1.89% copper; and 318,000 tons grading 1.71% copper, 7.17% zinc, 1.04% lead, 3.88 ounces of silver and 0.015 ounce of gold per ton.

Note: Proven reserves — The estimated quantities of commercially recoverable reserves that, on the basis of geological, geophysical, and engineering data, can be demonstrated with a reasonable high degree of certainty to be recoverable in the future from known mineral deposits by either primary or improved recovery methods.

Probable reserves — The estimated quantities of commercially recoverable reserves that are less well defined than proven reserves and that may be estimated or indicated to exist on the basis of geological, geophysical, and engineering data.



# FALCONBRIDGE NICKEL MINES LIMITED

## MAJOR GROUP OPERATIONS

The following section presents a review of the Integrated Nickel Operations, page 52, and the Company's Westfrob Mining Division, page 56. Also included is selected information from the annual reports of the following major subsidiary and associated companies:

* Corporation Falconbridge Copper .....	57
* New Quebec Raglan Mines Limited .....	58
* Indusmin Limited .....	59
Falconbridge Dominicana, C. por A. ....	61
* Giant Yellowknife Mines Limited .....	62
* United Keno Hill Mines Limited .....	63
* Kiena Gold Mines Limited .....	64
Blanket Mine (Private) Limited .....	64
Western Platinum Limited .....	65
Oamites Mining Company (Proprietary) Limited . . .	66

\* These public companies are subject to corporate and securities legislation of various jurisdictions. The annual reports of these companies, from which the information has been extracted, are available for public inspection at the offices of the regulatory authorities administering such legislation.



## THE INTEGRATED NICKEL OPERATIONS

The Integrated Nickel Operations include the Canadian Nickel Division, Sudbury, Ontario, the refinery in Norway, and the Company's Marketing Group.

### Financial Review

The Integrated Nickel Operations contributed a profit of \$57,372,000 in 1980 compared with \$62,213,000 in 1979. Higher total revenues from metal sales were offset by increased unit production and other costs and higher taxes.

Sales of nickel in 1980 totalled 54,159,000 pounds, 36 per cent below the 1979 level of 84,454,000 pounds; however, the higher price received per pound (U.S.\$3.25 in 1980, compared with U.S.\$2.31 in 1979) tended to offset the lower volume of sales. Copper sales of 53,686,000 pounds were 11,226,000 pounds or 26 per cent more than the 42,460,000 pounds sold in 1979. The increased sales and a higher average selling price received per pound (U.S.99¢ in 1980, compared with U.S.89¢ in 1979) contributed significantly to revenues. The gross revenue from sales of cobalt was lower than in 1979 because the increased sales volume was more than offset by the lower price of cobalt.

Amortization of development and preproduction expenses was higher because the Onaping and Lockerby Mines came on stream in late 1979 and operated throughout 1980. In addition, the level of current development expenditures was higher than in 1979. Income and mining taxes were higher because of higher pre-tax earnings and as a result of an increase in the effective rate for Ontario Mining tax.

Exploration expenditures increased by \$2,737,000 to a total of \$5,127,000. Interest income in 1980 exceeded interest expense by \$5,150,000, whereas in 1979 interest expense exceeded interest income by \$1,571,000. The change reflects higher cash balances and higher interest rates.

The total expenditures on property, plant, equipment, and development and preproduction of \$63,336,000 in 1980 compare with \$36,268,000 in 1979.

### Sudbury Operations

#### Operating Review

During 1980, nickel production from Sudbury Operations was 66,495,000 pounds compared with 56,122,000 pounds in 1979. Ore delivered to treatment plants from the Company's mines in the Sudbury area totalled 3,262,000 tons compared with 2,762,000 tons in 1979. The Falconbridge, East, Lockerby, Onaping and Strathcona Mines were in operation throughout the year, and the North Mine was re-activated during the third quarter. Development continued at the Fraser Mine, with production scheduled to begin in 1981.

The second fluid bed roaster-electric furnace was successfully put on-line in January, 1980. A new circuit for the production of a high grade copper concentrate was installed in the Strathcona Mill, production commenced in December, 1980, and an agreement was concluded for the treatment and refining of the concentrate in Ontario.

The number of employees at Sudbury Operations increased by 244 during 1980, to a total of 3,886 employees at year end. In addition, 280 students were employed during the summer. In July 1980, the operations were shutdown for a two week summer vacation and a similar shutdown has been scheduled for July, 1981.

#### Capital Programs

The development of the Fraser Mine was the major capital project in 1980, involving expenditures of \$18,664,000 for preproduction and capital items. A further \$27,060,000 was spent on development of other mines and capital improvements in the Sudbury area.

#### Ore Reserves

The total tonnage of proven and probable reserves at the Company's Sudbury Operations increased during the year including significant increases in the Craig area. The average nickel content of the reserves was also higher than in 1979.

The figures in the table on the facing page include appropriate allowances for mining dilution:

### Integrated Nickel Operations

	Year ended December 31		
	1980	1979	1978
Revenue from metal shipments .....	\$350,496,000	\$348,973,000	\$209,915,000
Earnings before amortization and depreciation .....	84,531,000	81,719,000	22,846,000
Income and mining taxes .....	47,189,000	33,145,000	(1,181,000)
Earnings for the year .....	57,372,000	62,213,000	6,558,000
— per share of Falconbridge .....	\$11.42	\$12.38	\$1.31



## Sudbury Ore Reserves (proven and probable)

At December 31,	Tons of Ore	Tons of Contained Metal		Average Grade %	
		Nickel	Copper	Nickel	Copper
1980 .....	78,649,000	1,180,000	613,000	1.50	0.78
1979 .....	75,771,000	1,117,000	605,000	1.47	0.80
1978 .....	78,808,000	1,162,000	611,000	1.47	0.78

## Government Legislation

A report outlining a study and preliminary plans for reducing sulphur dioxide emissions was submitted to the Ontario Ministry of the Environment in January, 1981. In the interest of aviation safety and as requested by the Department of Transport, lights were installed on the tallest smelter stack. The obsolete pyrrhotite plant stack was taken down with assistance from members of the Canadian Armed Forces, who used the assignment as a training exercise in demolition.

## Environment

The Conservation Area established in 1979 at Falconbridge, Ontario, as part of a major environmental program for treatment of mine and plant effluent, has been enlarged. Vegetation growth is expanding to cover the flooded sections and wildlife is returning to the area in ever-increasing numbers.

Red Pine Lake in Happy Valley has been stabilized by making it part of a system which uses Wanapitei River water for charging the aquifer serving the local deep wells. This area is now being used for recreational purposes and to enhance its appeal the lake has been stocked with speckled trout.

## Occupational Health and Safety

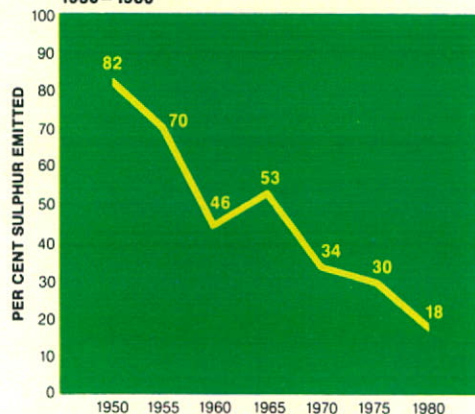
A health study was carried out at Sudbury Operations during 1980 to determine what effects, if any, the working environment may have on employees. According to a preliminary report, the overall statistics gave no cause for concern. However, at this time, firm conclusions cannot be drawn regarding health effects in certain employee sub-groups due to the small number of persons involved. The study is continuing with the assistance of the Occupational Health Department of McMaster University.

During 1980, representations were made to various government inquiries and commissions, including the Joint Federal and Ontario Government Inquiry into Mine Safety, and the Ontario Government's Proposed Regulations on Silica and Noise Standards.

## Management

General Manager, Sudbury Operations	G. B. Reed
Manager, Maintenance and Services	R. J. Brailey
Manager, Human Resources and Public Affairs	G. R. Buckland
Manager, Mineral Processing	Frank Petkovich
Manager, Mines	Justin Pryor
Manager, Administrative Services	W. L. W. Taylor

**Sudbury Operations  
PER CENT SULPHUR EMISSION  
OF SULPHUR IN PLANT FEED  
1950-1980**



Over a period of 30 years the proportion of the sulphur in the ore treated which is emitted from the Falconbridge smelter as sulphur dioxide has been reduced from 82 per cent to 18 per cent.



**REACHING OUT TO THE PUBLIC** — An intensified program of communications is being carried forward at Sudbury Operations, and during 1980 more than 5,500 visitors took part in the public tours offered by the Company. Shown here are university students, all members of employees' families, who were employed to act as guides during the tourist season.



## THE INTEGRATED NICKEL OPERATIONS

### Falconbridge Nikkelverk

#### Aktieselskap

Production of all metals in 1980 at the Norwegian refinery increased substantially over that of 1979. Production of nickel, copper and cobalt were up 21 per cent, 24 per cent and 34 per cent respectively. The production of refined nickel and copper remained below capacity, however, because of weak market demand for nickel products. The production of refined cobalt was kept at a high level through treatment of custom cobalt materials from outside sources.

The present labour contract expires on April 1, 1981 and negotiations directed toward a new contract have begun.

#### Management

Managing Director	Eivind Wigstol
Director of Metallurgy and Research	L. R. Hougen
Technical Director	E. O. Stensholt

### MARKETING GROUP

The Falconbridge Marketing Group includes Falconbridge Canada in Toronto; Falconbridge International Limited in Hamilton, Bermuda; Falconbridge U.S. Incorporated in Pittsburgh; and Falconbridge Europe, S.A. in Brussels, Belgium. Falconbridge products, which include six different forms of nickel as well as copper, cobalt, silver, gold, platinum, lead and zinc, are marketed through this Group.

### Metals Review

#### Nickel

World nickel markets became very competitive in the second quarter of 1980 as production exceeded consumer demand. Nickel deliveries by non-Communist world producers in 1980 were about 1,070,000,000 pounds, 16 per cent lower than in 1979. Nickel production, however, increased by approximately 15 per cent to an estimated 1,180,000,000 pounds. As a result, producer nickel inventories reached about 400,000,000 pounds by year end, an increase of 110,000,000 pounds over the year-end 1979 level. In spite of this increase, total producer inventories by the end of 1980 were only slightly in excess of normal working levels.

In the United States, consumer nickel demand remained strong during the early months of 1980 but a sharp drop in demand occurred during the second and third quarters as the effects of the business recession became more pronounced. Most severely affected were the automotive, appliance and construction sectors. Stainless steel production was cut back in mid-year to approximately 60 per cent of industry capacity.

As consumption fell, consumers reduced nickel inventories to minimum levels. Nickel demand increased over the final three months of 1980 as business activity improved. Consumers began to restock, although high interest rates had a restraining influence on the moderate recovery.

The stainless steel industry anticipates a moderate increase in 1981 over the 1980 level. Most other sectors, such as the super alloy and high nickel alloy sectors, are expected to parallel their 1980 performance.

In Europe, general economic conditions began to deteriorate rapidly through the second half of 1980, with a corresponding marked decrease in producer nickel deliveries. European stainless mills cut back production and some steelmakers operated at only 50 per cent of capacity.

No substantial improvement in the economy is expected before the second half of 1981. It is anticipated, however, that over the year nickel demand will be slightly higher than in 1980.

#### Copper

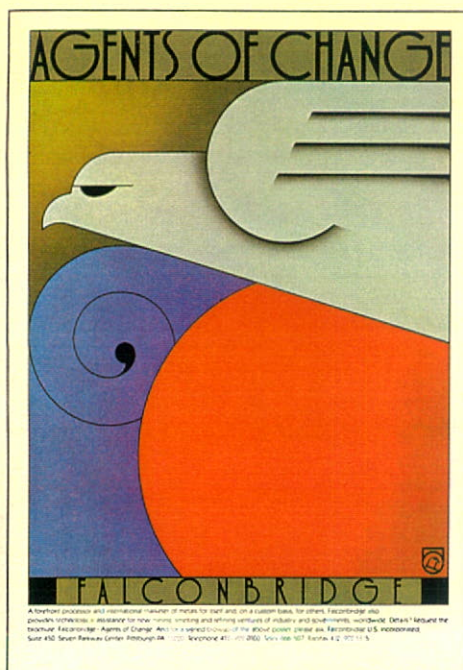
Non-Communist world copper consumption in 1980 declined to about 7,937,000 tons, a 4 per cent decrease from the record level of 8,267,000 tons in 1979. Production in 1980 of 7,716,000 tons was approximately the same as in 1979. Production would have been substantially higher had it not been for the strike in the United States copper industry which commenced in July and affected production until November. The loss was offset by increased output from Zaire, Zambia, Canada, Chile and Peru. Production is expected to exceed consumption slightly in 1981, resulting in a moderate rise in inventories.

#### Cobalt

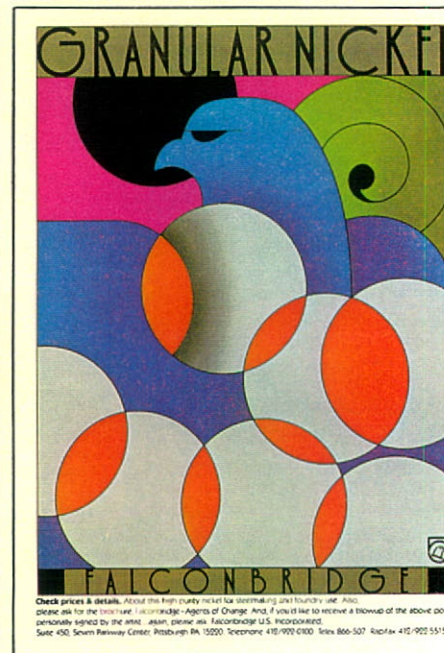
Non-Communist world consumption of cobalt declined in 1980, in line with the lower levels of economic activity in most countries. The price increases of 1978 and 1979 stimulated some substitution for cobalt, particularly in the magnetic alloy and hard facing sectors. Cobalt demand was outstripped by production, resulting in a buildup of producer inventories by year-end.

(Other Metals — page 56)





Falconbridge's current advertising campaign in international markets features a series of striking poster designs, several of which appear throughout this report. Each advertisement includes a stylized rendering of a falcon, artistically integrated with a particular theme or product form and accompanied by appropriate text.



LEFT: Falconbridge outdoor advertising board, strategically situated near the expressway leading downtown from the Pittsburgh airport.



## THE INTEGRATED NICKEL OPERATIONS

### Metals Review (continued)

#### Other Metals

All precious metal prices moved over a wide range in 1980. Prices moved up very sharply through the first quarter of 1980 but only gold and platinum retained these high levels throughout the year. Gold prices were U.S.\$560 per ounce at the beginning of the year and closed at U.S.\$590 per ounce at year end. Silver prices were very erratic throughout the year, opening at U.S.\$38 per ounce and closing at U.S.\$16 per ounce. Platinum prices were U.S.\$806 per ounce in January, 1980, and U.S.\$578 per ounce at the end of the year.

#### Management

##### Falconbridge Canada

Canadian Marketing Division of  
Falconbridge Nickel Mines Limited  
President M. O. Pearce  
Vice-President Marketing T. J. Desanti

##### Falconbridge International Limited

President J. A. Vermeulen

##### Falconbridge U.S. Incorporated

General Manager R. W. Bain

##### Falconbridge Europe S.A.

General Manager J. H. Lilly

#### Wesfrob Mining Division

(Formerly Wesfrob Mines Limited)

Earnings for the year were \$1,503,000 compared with \$4,674,000 in 1979. The reduction was due to decreased revenue from lower copper production and increased operating costs which were only partially offset by higher sales of iron concentrate.

tons was the highest in several years. This level is expected to be maintained throughout 1981 and 1982.

During 1980 sufficient ore reserves were developed to continue the operation through 1987.

Production of iron concentrates at 677,000

Production	Year Ended December 31		
	1980	1979	1978
Iron concentrates — tons	677,000	638,000	560,000
Copper concentrates — tons	12,000	18,000	14,000
Copper in concentrates — pounds	4,904,000	7,174,000	5,769,000
<b>Financial</b>			
Revenue from metals produced	\$18,473,000	\$21,069,000	\$13,222,000
Earnings before amortization and depreciation	2,186,000	5,545,000	1,956,000
Earnings for the year	1,503,000	4,674,000*	538,000*
— per share of Falconbridge	30¢	93¢	11¢

\* Before consolidation adjustments.

#### Management

President P. L. Munro  
Vice-President and General Manager C. L. Stafford  
Mine Manager W. H. Muise



## MAJOR SUBSIDIARY AND ASSOCIATED COMPANIES

### Corporation Falconbridge Copper (Formerly Falconbridge Copper Limited)

Earnings in 1980 were \$30,333,000 compared with \$46,549,000 in 1979. The 1980 earnings reflect lower metal production, higher operating costs, increased exploration expenditures and a higher rate of tax offset by higher copper and gold prices, lower provision for depreciation of fixed assets and amortization of preproduction expenses and higher income from investments. Working capital increased by \$21,789,000 after payment of dividends of \$12,970,000, fixed asset expenditures of \$1,368,000 and exploration and development expenditures of \$15,267,000.

Total metal production from all three divisions of the Company was 69,172,000 pounds of copper, 50,984,000 pounds of zinc, 44,000 ounces of gold and 1,782,000 ounces of silver. Copper production decreased by 14,375,000 pounds from 1979, gold by 4,000 ounces, zinc by 40,726,000 pounds and silver by 564,000 ounces.

### Lake Dufault Division

Operating profit for the year at the Lake Dufault Division was \$12,898,000 or \$19,377,000 less than in 1979, due primarily to lower production of all metals, higher operating costs and increased exploration expenditures. Operating costs of \$15,245,000 were higher than in 1979 due mainly to the commencement of production at the Corbet Mine in January, 1980.

Tonnage milled in 1980 totalled 524,000 tons grading 2.70 per cent copper and 2.19 per cent zinc. This compares with 463,000 tons grading 3.60 per cent copper and 4.90 per cent zinc in 1979. Production in 1980 of 26,776,000 pounds of copper, 15,885,000 pounds of zinc, 302,000 ounces of silver and 8,000 ounces of gold was lower than in the previous year.

Proven and probable ore reserves at the end of 1980 were calculated at 2,970,000 tons with average grades of 2.98 per cent copper and 2.05 per cent zinc, compared with 3,572,000 tons with average grades of 2.99 per cent copper and 2.13 per cent zinc at the end of 1979.

The Millenbach Mine, which operated on lower grade ores in 1980, will be closed in 1981 due to the exhaustion of its reserves.

### Opemiska Division

The Opemiska Division achieved an operating profit of \$22,258,000 in 1980 compared with \$22,671,000 in 1979.

Ore milled in 1980 totalled 1,063,000 tons, 11,000 tons more than in 1979. Copper production of 32,330,000 pounds was 3,992,000 pounds below that of the previous year, silver production decreased by 41,000 ounces to 261,000 ounces, and gold production decreased by 2,000 ounces to 33,000 ounces.

Proven and probable ore reserves at December 31, 1980 for the Springer, Perry and Cooke Mines totalled 3,755,000 tons grading 1.71 per cent copper compared with 4,675,000 tons grading 1.89 per cent copper at year-end 1979.

### Sturgeon Lake

The operating profit of the Joint Venture for 1980 was \$27,036,000, a decrease of \$9,837,000 from that of 1979. The milling of ore from the Joint Venture ceased during October and silver-rich tailings were treated in the concentrator until the termination of operations on December 12, 1980. Corporation Falconbridge Copper's share of the operating profit in 1980, after all charges, amounted to \$23,028,000.

Tonnage of ore milled was 329,000 tons and tonnage of high silver tailings was 80,000 tons. Production in 1980 at Sturgeon Lake was 10,778,000 pounds of copper, 37,580,000 pounds of zinc, 4,346,000 pounds of lead, 1,305,000 ounces of silver and 3,000 ounces of gold. Production in 1979 was 16,714,000 pounds of copper, 58,707,000 pounds of zinc, 4,873,000 pounds of lead, 1,665,000 ounces of silver and 4,000 ounces of gold.

A final environmental plan for the Sturgeon Lake property, which was submitted to the Ontario Ministry of the Environment, will be put into effect in 1981.

(Tabulation — page 58)



## MAJOR SUBSIDIARY AND ASSOCIATED COMPANIES

### Corporation Falconbridge Copper (Continued)

Capitalization	Outstanding	As at December 31, 1980	
		Held by Falconbridge	
Common shares .....	12,970,125	6,509,696	50.2%
<b>Financial</b>			
	1980	Year ended December 31 1979	1978
Revenue from metal shipments .....	\$171,428,000	\$204,818,000	\$132,429,000
Earnings before amortization and depreciation ..	35,708,000	54,651,000	22,045,000
Income and mining taxes .....	34,845,000	47,500,000	17,267,000
Earnings for the year .....	30,333,000	46,549,000	15,058,000
Dividends paid .....	12,970,000	7,782,000	2,594,000
Dividends paid per share .....	\$1.00	60¢	20¢
Working capital .....	106,983,000	85,194,000	45,525,000
Falconbridge interest* in earnings for the year ...	\$ 15,227,000	\$ 23,368,000	\$ 7,559,000
— per share of Falconbridge .....	\$3.03	\$4.65	\$1.51
Falconbridge interest in dividends paid .....	\$ 6,510,000	\$ 3,906,000	\$ 1,302,000
— per share of Falconbridge .....	\$1.30	\$0.78	\$0.26
* Before consolidation adjustments			
<b>Management</b>			
Chairman of the Board	A. G. Slade		
President and Chief Executive Officer	L. C. Kilburn		
Vice-President — Operations	Roger Plasse		
Manager, Opemiska Division	P. P. Dessureault		
Manager, Lake Dufault Division	W. R. Wright		
Manager, Sturgeon Lake Joint Venture	H. R. Graham		

### New Quebec Raglan Mines Limited

The Company's wholly-owned subsidiary, Raglan Quebec Mines Limited, holds exploration permits covering 326 square miles and 167 mineral claims in the Ungava region of Quebec.

In 1980 an airborne magnetometer survey was taken of the permit areas. In addition, the rehabilitation of equipment and facilities was completed in preparation for the 1981 diamond drilling and surface mapping program. Net expenditures on the properties to date have amounted to \$35,185,000.

An extensive review of feasibility studies was

carried out in 1980. Methods of providing less expensive power and reduced plant construction costs were identified, as a basis for further technical and economic evaluation in 1981. Profits commensurate with the risks of operating in such a remote northern location must be indicated before development to production. The exploration permits and development licences pertaining to these properties expire in 1982 and the Company believes that new permits will be issued.

Proven and probable ore reserves are 16,050,000 tons grading 2.58 per cent nickel and 0.71 per cent copper.

Capitalization	Outstanding	As at December 31, 1980	
		Held by Falconbridge	
New Quebec Raglan Mines Limited common shares .....	7,790,785*	5,326,981*	68.4%
Raglan Quebec Mines Limited			
Preferred shares — 6% .....	7,500,000	7,500,000	100%
— 8% .....	7,500,000	7,500,000	100%
— 6% .....	3,404,477**	3,404,477	100%
Common shares .....	4,005***		

\* Includes 26,914 common shares to be issued.

\*\* Includes 1,007,911 6% preferred shares to be issued.

\*\*\* Wholly-owned by New Quebec Raglan Mines Limited.

### Management

President	L. C. Kilburn
Vice-President	T. F. Pugsley



## Indusmin Limited

Indusmin Limited (Indusmin) results include the operations of the parent company (Company) and its subsidiary companies, Fahramet Limited (Fahramet) and Lawson-United Feldspar and Mineral Company.

Record sales revenue was established again in 1980 totalling \$63,945,000, an increase of 14 per cent over 1979. Increases were experienced in all the Company's Mineral Division operations except Ontario Silica where lump quartzite sales were substantially reduced because of the economic recession in North America. Fahramet's steel castings sales in the first six months of 1980 continued the strong trend of the latter part of 1979. In the second half of 1980, however, they were considerably depressed in recessionary markets.

After-tax consolidated earnings were \$3,521,000, a decline of 14 per cent from the record established in 1979; however, this represented the second best year in Indusmin's history. The earnings of Fahramet were significantly lower in 1980 than in the prior year, reflecting pressures on pricing due to excess industry capacity and strong competition. In addition, depressed markets

caused under-utilization of Fahramet's modernized sand casting facility. These circumstances led to a 21 per cent reduction in the work force.

The new \$4,000,000 foundry facilities at Fahramet, which were brought into production during 1980, coincided with the downturn in the economy; therefore, the benefits of this plant modernization have yet to be fully realized.

The new dryer installed at the Company's Quebec Silica operations at the end of 1979 at a cost of \$1,800,000 has provided the energy savings and efficiencies anticipated.

The only major capital expenditure commitment during 1980 was for a new electric shovel for the Acton aggregates quarry. The capital outlay for this replacement unit will be approximately \$1,300,000, with assembly and start-up scheduled for the first quarter of 1981.

The outlook for 1981 depends upon the extent of general economic recovery from the present recession. All Indusmin operations are prepared to respond quickly to any upturn in the market.

Capitalization	As at December 31, 1980		
	Outstanding	Held by Falconbridge	
Common shares . . . . .	1,167,901	806,030	69%

Financial (Consolidated)	Year ended December 31, 1980		
	1980	1979	1978
Sales . . . . .	\$ 63,945,000	\$ 56,038,000	\$ 46,686,000
Earnings before amortization and depreciation* . . . . .	6,568,000	6,990,000	6,116,000
Earnings for the year* . . . . .	3,521,000	4,109,000	3,185,000
Dividends paid — 90¢ per share . . . . .	1,051,000	1,051,000	1,051,000
Working capital* . . . . .	13,129,000	11,210,000	8,410,000

\* A tax reassessment of \$143,000 received in 1980 resulted in the restatement of certain prior years' data. Falconbridge Nickel Mines Limited included the reassessment in its 1980 consolidated accounts and did not restate prior years.

Falconbridge interest** in earnings for the year . . .	\$ 2,429,000	\$ 2,836,000	\$ 2,099,000
— per share of Falconbridge . . . . .	48¢	56¢	42¢
Falconbridge interest in dividends paid . . . . .	\$ 725,000	\$ 725,000	\$ 725,000
— per share of Falconbridge . . . . .	14¢	14¢	15¢

\*\* Before consolidation adjustments.

Management	
President and Managing Director	Ian H. Keith
Executive Vice-President	C. M. Woodruff
Senior Vice-President Minerals Division	R. Lavertu
Senior Vice-President Castings Division	J. L. Caylor
Vice-President Corporate Affairs	S. B. Goss



FERRO NICKEL



FALCON BRIDGE



## MAJOR SUBSIDIARY AND ASSOCIATED COMPANIES

### Falconbridge Dominicana, C. por A.

The Company incurred a net loss of RD\$8,578,000 in 1980 compared with earnings of RD\$8,572,000 in 1979. Demand for ferronickel weakened dramatically late in the second quarter of the year and, in order to avoid excessive inventory build-up, the Company suspended its production operations for three months from August 1, 1980. The suspension was extended by two months as the recovery in demand for the Company's ferronickel products was slower than anticipated. In late November, when it became apparent that the inventory level would be normalized by year end, a decision was made to resume production in January, 1981.

Total shipments in 1980 were 36,491,000 pounds of contained nickel compared with 54,130,000 pounds in 1979. The reduced demand for ferronickel and continued escalation of oil prices aggravated an already critical cash situation. As a result, the Company called upon Falconbridge Nickel Mines Limited and the other project sponsor to provide additional funds, pursuant to the terms of its financing agreements. This additional funding is in the form of subordinated notes

which bear interest at a rate of 1 per cent above the United States prime rate in effect on the date the notes are issued. During the year, notes amounting to U.S.\$14,223,000 were issued, and further notes will be issued to meet cash requirements in 1981.

The total debt at December 31, 1980 was RD\$127,380,000 including an unfavourable exchange adjustment of RD\$5,924,000. The adjustment resulted from the conversion of the non-U.S. dollar portion of the loan from the International Bank for Reconstruction and Development (World Bank) at current rates of exchange. In 1981, RD\$14,264,000 of the debt matures.

Proven and probable ore reserves at the end of 1980 were 66,000,000 dry short tons grading 1.64 per cent nickel compared with 68,700,000 dry short tons grading 1.64 per cent nickel in 1979.

The total permanent work force at year-end 1980 was 2,112 employees, of whom 2,073 were Dominican and 39 were expatriate personnel. At the end of the previous year there were 2,130 employees: 2,087 Dominicans and 43 expatriates.

Capitalization	As at December 31, 1980		
	Outstanding	Held by Falconbridge	
Common shares .....	3,000,000	1,971,524	65.7%
Production	Year ended December 31		
	1980	1979	1978
Shipments of ferronickel (nickel content in pounds) .....	36,491,000	54,130,000	43,562,000
Financial (RD\$1.00 equals U.S.\$1.00)			
Revenue from metal shipments .....	RD\$117,684,000	RD\$137,165,000	RD\$ 78,459,000
Earnings before interest on debt, depreciation and amortization .....	11,738,000	29,914,000	2,742,000
Earnings (loss) for the year .....	(8,578,000)	8,572,000	(12,311,000)
Working capital .....	43,679,000	48,028,000	37,593,000
Long-term debt (1980 excludes RD\$14,264,000 in current liabilities; 1979 and 1978 excludes RD\$11,144,000 and RD\$3,413,000 respectively) .....	113,116,000	110,534,000	121,167,000
Falconbridge interest* in earnings (loss) for the year .....	Cdn.\$(6,274,000)	Cdn.\$6,493,000	Cdn.\$(7,706,000)
— per share of Falconbridge .....	Cdn.\$(1.25)	Cdn.\$1.29	Cdn.\$(1.53)

\* Before consolidation adjustments

### Management

President	H. T. Berry
Executive Vice-President	Ian H. Keith
Vice-President and General Manager	W. W. Dales
Manager of Operations	R. McAllister



## MAJOR SUBSIDIARY AND ASSOCIATED COMPANIES

### Giant Yellowknife Mines Limited

The Company's results include the operations of its subsidiary companies, Lolor Mines Limited and Supercrest Mines Limited.

Consolidated earnings were \$6,292,000 in 1980 compared with \$8,315,000 in 1979.

The lower earnings reflected a loss of production due to an illegal walkout of two weeks' duration in April, and a legal strike that lasted from July 10 to October 24, which affected all operations in the Giant Group.

Production for 1980 totalled 227,000 tons grading 0.20 ounce of gold per ton compared with 416,000 tons at 0.21 ounce of gold per ton in 1979. Bullion output in 1980 was 38,000 ounces compared with 75,000 ounces in the prior year.

Costs continued to escalate, particularly for electrical power and oil. Cost of supplies increased significantly, and labour costs also increased under the new contract which extends from April 1, 1980 to June 30, 1982.

To a large extent the improvement in the average price received for gold, from \$412 per ounce in 1979 to \$730 per ounce in 1980, offset the increased costs and loss of revenue caused by the strike. Higher gold prices also enabled further additions of lower grade ore to ore reserves. After mining 227,000 tons in 1980, developed ore reserves as at December 31, 1980, were 2,005,000 tons at 0.21 ounce

of gold per ton, compared with 2,054,000 tons at 0.21 ounce of gold per ton at December 31, 1979.

The strike prevented almost all of the exploration drilling planned for the Supercrest and Northbelt properties during 1980. Exploration for precious metals, however, was carried out elsewhere in the Northwest Territories, in Saskatchewan and, through a company jointly owned by the Company and United Keno Hill Mines Limited, in Utah and Nevada. Some encouragement was received in Saskatchewan and in Nevada, as well as at two locations in the Northwest Territories, and drill testing will be required in 1981. Results of drilling on a base metal project in Newfoundland were disappointing; however, this work will be continued during 1981.

Metallurgical investigations were carried out on drill core obtained from the Sudbury Basin property in 1979. Although some encouragement was obtained, further detailed metallurgical testwork will be necessary before a decision can be made regarding a pilot plant study.

A reassessment of the Salmita gold property, 250 miles north of Yellowknife, was initiated during 1980. Previous work has indicated potential reserves of 135,000 tons grading 0.625 ounce of gold per ton.

Capitalization	As at December 31, 1980		
	Outstanding	Held by Falconbridge	
Common shares	4,303,050	824,413	19.2%
Production (Consolidated)	Year ended December 31, 1980		
	1980	1979	1978
Ore milled — tons	227,000	416,000	397,000
Gold produced — ounces	38,000	75,000	95,000
Financial (Consolidated)			
	1980	1979	1978
Revenue from metals produced	\$ 28,142,000	\$31,129,000	\$22,362,000
Earnings before amortization and depreciation	6,790,000	8,739,000	4,455,000
Earnings for the year	6,292,000	8,315,000	3,731,000
Dividends paid	4,303,000	2,582,000	2,151,000
Dividends paid per share	\$1.00	60¢	50¢
Working capital	15,977,000	15,765,000	10,753,000
Falconbridge interest* in earnings for the year	\$ 1,206,000	\$ 1,596,000	\$ 715,000
— per share of Falconbridge	24¢	32¢	14¢
Falconbridge interest in dividends paid	\$ 825,000	\$ 495,000	\$ 412,000
— per share of Falconbridge	16¢	10¢	8¢

\* Before consolidation adjustments, accounted for on an equity basis.

### Management

President and Managing Director D. J. Emery  
General Manager W. A. Moore



### United Keno Hill Mines Limited

Earnings of \$7,679,000 in 1980 were the second highest in the Company's history.

All operations at the Elsa Mining Division were adversely affected by a legal strike of unionized employees which commenced September 10, 1980. At March 13, 1981 the strike was still in effect and all operations at the Elsa Mining Division remained shut down. The Elsa Mining Division is the only productive property of the Company.

Construction of the Venus Mine project near Carcross, Yukon, some 340 miles south of Elsa, was started in September, 1980. This 100-ton per day gold-silver operation is expected to come on stream in August, 1981, with construction costs estimated at \$7,800,000. Proven and probable reserves at Venus Mining Division, sufficient for three

years' operation, are 120,000 tons grading 6.6 ounces of silver per ton and 0.22 ounce of gold per ton.

The average price received in 1980 for silver was \$17.91 per ounce compared with \$19.83 per ounce in 1979.

Proven, probable and indicated ore reserves at the Elsa Mining Division increased in 1980 to 480,000 tons grading 24.7 ounces of silver per ton, including 62,000 tons grading 21.0 ounces per ton in stockpile. At year-end 1979, reserves were 331,000 tons grading 29.1 ounces per ton. Ore reserve increases were recorded after mining 88,000 tons grading 23.0 ounces per ton in 1980. Additions were made in several areas that will be mined by open pit and in the south-west Husky, which will be an underground operation.

Capitalization	Outstanding	As at December 31, 1980	
		Held by Falconbridge	
Common shares .....	2,470,000	1,195,989	48.4%
Production	Year Ended December 31		
	1980	1979	1978
Ore milled — tons .....	88,000	124,000	90,000
Silver produced — ounces .....	1,665,000	2,481,000	2,738,000
Lead produced — pounds .....	3,296,000	5,620,000	7,521,000
Financial			
	1980	1979	1978
Revenue from metal shipments .....	\$31,742,000	\$53,226,000	\$21,623,000
Earnings before amortization and depreciation .....	8,705,000	21,573,000	4,338,000
Earnings for the year .....	7,679,000	20,726,000	3,769,000
Dividends paid .....	5,434,000	4,940,000	1,729,000
Dividends paid per share .....	\$2.20	\$2.00	70¢
Working capital .....	30,912,000	31,313,000	16,684,000
Falconbridge interest* in earnings for the year .....	\$ 3,718,000	\$ 10,035,000	\$ 1,825,000
— per share of Falconbridge .....	\$0.74	\$1.99	\$0.36
Falconbridge interest in dividends paid .....	\$ 2,631,000	\$ 2,392,000	\$ 837,000
— per share of Falconbridge .....	\$0.52	\$0.47	\$0.16

\* Accounted for on an equity basis.

### Management

President and Managing Director	P. L. Munro
Vice-President	C. L. Stafford
Mine Manager	V. E. Smith



## MAJOR SUBSIDIARY AND ASSOCIATED COMPANIES

### Kiena Gold Mines Limited

The property of Kiena Gold Mines Limited, comprising 59 mining claims, covers an area of 2,999 acres in Dubuison Township in the Province of Quebec, six miles west of Val d'Or. Preliminary work at the property was carried out during the period 1962-65 and included the sinking of a shaft to a depth of 1,324 feet, lateral extensions on three levels, and a program of definition diamond drilling.

The project re-evaluation and mining work initiated in 1979 was continued in 1980. All of this work was undertaken and supervised by the technical and financial staff of Falconbridge Nickel Mines Limited. This extensive preparatory program, which was also financed by Falconbridge, included several major components: a comprehensive feasibility study, the dewatering and inspection of the mine workings, the installation of basic mine plant, structural geological and geotechnical studies, mine and plant design and arrangements for suitable custom milling capacity. The results culminated in a decision by the Kiena Board of Directors in June, 1980 to put the property into production.

To finance the project, Kiena has arranged a \$25,000,000 revolving term loan with a Canadian bank. The amount drawn down under this term credit as at December 31, 1980 was \$8,100,000. The loan is secured by a fixed and floating charge upon Kiena's assets. Proceeds from the loan were first used to repay Falconbridge for its initial financing of the new project, in the amount of \$3,400,000.

Kiena has signed a custom milling contract

with Lamaque Mining Company Limited. It provides for the milling of a minimum of 900,000 tons of Kiena ore over a period of three years commencing in October, 1981, with an option to extend the contract for an additional period of one, two or three years.

An Environmental Impact Analysis Report has been prepared and filed with the Department of the Environment in Quebec.

At the end of 1980, underground development work was proceeding on schedule with stope preparation work due to commence early in 1981. Construction of surface and underground plant and facilities was also well advanced, for operation by mid-1981. The work at the property is being undertaken by contractors; meanwhile, active recruitment of mine staff is in progress.

The Kiena Mine is projected to reach its full productive capacity of 25,000 tons per month during the fourth quarter of 1981 and will require 100 to 130 employees.

Proven and probable ore reserves have been calculated at 2,500,000 tons with an average grade of 0.23 ounce of gold per ton, including an allowance for dilution. At prevailing gold prices, considerable potential exists at depth for additional reserves at a lower grade. This would depend upon the application of lower cost bulk mining methods and the economies of scale resulting from an expansion in production rate. Construction of a Company-owned mill is under active consideration.

Capitalization	As at December 31, 1980		
	Outstanding	Held by Falconbridge	
Common shares	4,876,848	3,331,203	68.3%
Preference shares	2,467,459	2,467,459	100%
Long-term debt	\$8,100,000		

#### Management

President	G. P. Mitchell
Project Manager	B. A. Ferguson
Mine Manager	R. O. Vezina

### Blanket Mine (Private) Limited

Consolidated earnings in 1980 were \$3,797,000 compared with \$1,301,000 in 1979. Ore milled increased marginally to 166,000 tons while gold production remained constant at 15,000 ounces in 1980. The average price received increased from U.S. \$318 per ounce in 1979 to U.S. \$606 in 1980, resulting in a 103 per cent increase in net metal revenue. The cost per ton of ore milled increased 23 per cent over that of 1979 because of higher costs of labour and materials.

A total of 9,185 tons of ore was mined on a tribute basis from the Lima property situated near the Blanket Mine. Subsequent to year end, management approved the outright purchase of these claims, pursuant to an option held by the Company.

An \$8,000,000 development program commenced during the year at the wholly-owned subsidiary, Golden Kopje Mine (Private) Limited. This property is expected to come into production in late 1981, with production reaching 10,000 ounces of gold in 1982.



# Blanket Mine (Private) Limited (Continued)

Capitalization	Outstanding	As at December 31, 1980	
		Held by Falconbridge	
Common shares	9,208	9,208	100%
Production	Year ended December 31		
	1980	1979	1978
Ore milled — tons	166,000	165,000	169,000
Gold produced — ounces	15,000	15,000	16,300
Financial			
	1980	1979	1978
Net revenue from metals produced	\$10,922,000	\$ 5,382,000	\$ 3,789,000
Earnings before depreciation	4,056,000	1,555,000	760,000
Earnings for the year*	3,797,000	1,301,000	557,000
Dividends paid*	1,637,000	1,189,000	785,000
— per share of Falconbridge	33¢	24¢	16¢
Working capital	1,758,000	916,000	571,000

\* Only dividends received by Falconbridge are reflected in consolidated earnings.

## Management

Managing Director	A. Ryan
General Manager	D. J. Shand

## Western Platinum Limited

Earnings for the fiscal year ended September 30, 1980 amounted to R25,144,000 compared with R6,813,000 a year earlier.

Ore milled increased marginally to 1,444,000 tons from 1,354,000 tons in 1979.

Platinum sales decreased 9 per cent to 75,000 ounces while the average price received increased substantially, from U.S. \$384 per ounce in 1979 to U.S. \$613 in 1980. Total metal revenues increased to R57,783,000 from R42,496,000 in 1979.

As a result of the improvement in precious metal prices, the Company increased development work by 23 per cent over that of 1979. Inflationary increases in operating costs were partially offset by the high level of production and by productivity gains made by the Company during the year.

During 1980, the Company repaid all of its loans from shareholders, in the amount of R13,800,000.

The Company has commenced a R25,000,000 expansion program which will increase the annual production of platinum group metals to 245,000 ounces. Also, the Company has agreed in principle to purchase a precious metals refinery in South Africa which has previously been treating the Company's production. To finance these activities the shareholders approved a resolution to increase the share capital of the Company by R20,000,000 which will be taken up by the shareholders on a pro-rata basis over the next two years.

Capitalization	Outstanding	As at September 30, 1980	
		Held by Falconbridge	
Ordinary shares	10,000,000	2,500,001	25%
Production	Year ended September 30		
	1980	1979	1978
Ore milled — tons	1,444,000	1,354,000	1,165,000
Platinum group metals — ounces	150,000	132,000	113,000
Nickel — pounds	3,761,000	3,466,000	3,047,000
Financial			
	1980	1979	1978
1 Rand = Canadian	\$1.56	\$1.41	\$1.37
Revenue from metal sales	R57,783,000	R42,496,000	R25,405,000
Earnings for the year*	25,144,000	6,813,000	3,120,000
Working capital	13,530,000	15,400,000	13,451,000

\* Accounted by Falconbridge on a cost basis.

## Management

Joint Managing Directors	C. P. Beatty S. C. Newman
Mine Manager	A. A. Saffy



## MAJOR SUBSIDIARY AND ASSOCIATED COMPANIES

### Oamites Mining Company (Proprietary) Limited

Earnings of \$1,387,000 in 1980 were \$703,000 lower than in 1979. Copper production in 1980 decreased by 6 per cent from that of the prior year, to 12,892,000 pounds, with no significant change in the average price of copper. Silver production increased by 83,000 ounces to 229,000 ounces in 1980 and the average price received increased by 29 per cent.

Strong inflationary pressures caused operating costs per ton of ore milled to increase by 24 per cent.

At December 31, 1980 proven and probable ore reserves at the Oamites Mine amounted to 1,927,000 tons grading 1.07 per cent copper, an increase of 42,000 tons from 1979. Development work on the Swartmodder property, which commenced in 1979, was completed and the property was brought into production in October, 1980. Underground development work currently in progress indicates that the reported mineral reserves at the Swartmodder Mine may be lower than anticipated.

Capitalization	Outstanding	As at December 31, 1980	
		Held by Falconbridge	
Common shares .....	253,680	190,000	74.9%
Production	Year ended December 31		
	1980	1979	1978
Ore milled — tons .....	628,000	634,000	678,000
Recoverable copper — pounds .....	12,892,000	13,738,000	15,247,000
Financial			
	1980	1979	1978
Revenue from sale of concentrates .....	\$20,003,000	\$18,495,000	\$13,380,000
Earnings before amortization and depreciation ..	2,708,000	3,285,000	1,601,000
Earnings for the year .....	1,387,000	2,090,000	619,000
Dividends paid .....	1,069,000	1,071,000	516,000
Dividends paid per share .....	\$4.21	\$4.22	\$2.03
Working capital .....	3,917,000	3,460,000	2,069,000
Falconbridge interest* in earnings for the year ...	\$ 1,039,000	\$ 1,565,000	\$ 463,000
— per share of Falconbridge .....	21¢	31¢	9¢
Falconbridge interest in dividends paid .....	\$ 801,000	\$ 802,000	\$ 386,000
— per share of Falconbridge .....	16¢	16¢	8¢

\* Before consolidation adjustments.

#### Management

General Manager	D. P. Hugo
General Superintendent	R. Jervis



ACTIVE NICKEL



FALCONBRIDGE





## Corporate Offices

Head Office — P.O. Box 40,  
Commerce Court West, Toronto,  
Ontario, Canada M5L 1B4  
Telephone (416) 863-7000  
Telex 065-24211. Cables "Falconbrij"

Vancouver Office —  
1112 West Pender Street,  
Vancouver, B.C. V6E 2S1

## Among Wholly-Owned Operations

### Falconbridge Nikkelverk Aktieselskap

Kristiansand S., Norway  
G. Lous — Chairman of the Board  
E. Wigstol — Managing Director

### Wesfrob Mining Division

Tasū, Queen Charlotte Islands, B.C.  
P. L. Munro — President  
C. L. Stafford — Vice-President and  
General Manager

### Canadian Nickel Division

Falconbridge, Ontario P0M 1S0  
A. G. Slade — President  
G. B. Reed — General Manager,  
Sudbury Operations

### Sudbury Operations

**Mines** — Falconbridge, East, Lockerby,  
Onaping, North, Strathcona

**Mine Under Development** — Fraser

**Concentrators** — Falconbridge,  
Strathcona

**Smelter** — Falconbridge

## Marketing Subsidiaries

### Falconbridge International Limited

Gibbons Building, Queen Street  
Hamilton 5-31, Bermuda  
Telephone (809) 292-4700  
Telex 290-3479  
Rapifax: 809-292-5441

### Falconbridge Europe S.A.

150 Chaussée de La Hulpe — Bte. 15  
B-1170 Brussels  
Belgium  
Telephone: (02) 673-99-50  
Telex: (046) 23280  
Rapifax: (02) 660-64-82

### Falconbridge U.S. Incorporated

Seven Parkway Center  
Suite 450  
Pittsburgh, Pennsylvania 15220  
U.S.A.  
Telephone: (412) 922-0100  
Telex: 866-507  
Rapifax: 412-922-5515

### Falconbridge Canada

P.O. Box 40, Commerce Court West  
Toronto, Ontario, Canada M5L 1B4  
Telephone: (416) 863-7000  
Telex: 065-24211  
Rapifax: 364-8986

## Products

Products of Falconbridge Nickel Mines Limited and affiliated companies include nickel, ferronickel, copper, cobalt, gold, silver, platinum, palladium, iridium, rhodium, ruthenium, selenium, lead, iron ore, zinc, cadmium, nepheline syenite, silica, feldspar, mica, limestone aggregates, liquid sulphur dioxide, carbon and high-alloy steel castings, and other products for consumer and industrial use.

## Research Laboratories

Falconbridge Metallurgical Laboratories,  
Richmond Hill, Ontario; Kristiansand S.,  
Norway.

## Exploration Offices

Toronto, Sudbury and Timmins, Ontario;  
Quebec City, Quebec; Vancouver, British  
Columbia; Winnipeg, Manitoba; St. John's,  
Newfoundland; Santo Domingo,  
Dominican Republic; Oslo, Norway;  
Johannesburg, South Africa; Windhoek,  
Namibia (South West Africa); Gaborone,  
Botswana; and Manila, Philippines.

## Solicitors

**Tilley, Carson & Findlay**, Toronto

## Auditors

**Clarkson Gordon**, Toronto

## Transfer Agents and Registrars

**Crown Trust Company**, Toronto,  
Montreal, Vancouver and Calgary

## Registrar and Transfer Company

New York and Cranford, N.J., U.S.A.

## Stock Exchanges

The shares of Falconbridge Nickel Mines Limited are listed on the Toronto, Montreal and Vancouver stock exchanges.

The shares are also traded Over-the-Counter in the United States. The NASDAQ symbol is FALCF.







FALCONBRIDGE



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