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# Placer Development Limited

## Annual General Meeting

The Annual General Meeting of Shareholders of the Company will be held on Tuesday, May 1, 1973 at 12:00 Noon in the Board Room of the Hotel Vancouver, Vancouver, British Columbia, Canada.

The cover design introduces Placer's 1972 Annual Report theme, "The Mine Development Process" beginning on page 13.

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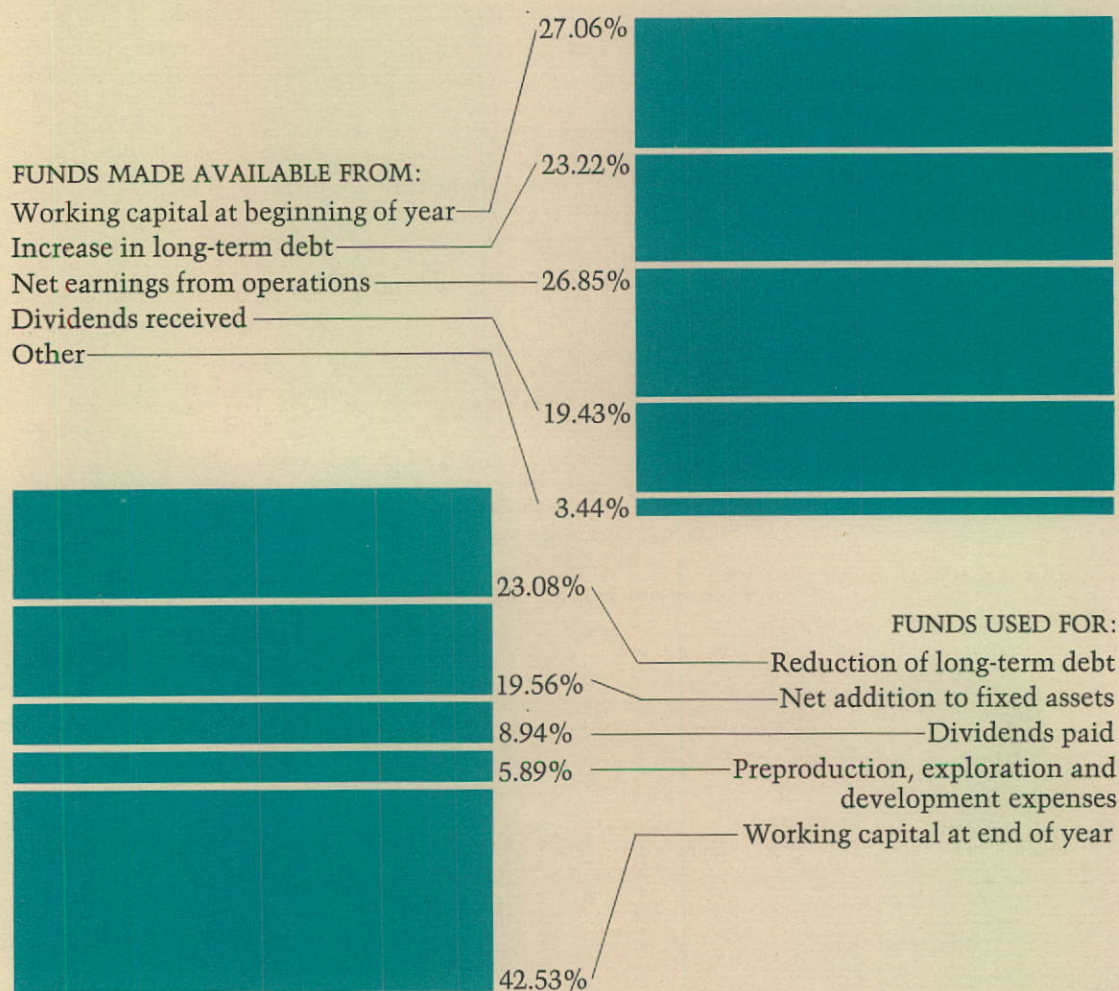


On December 22, 1971, established as valuation day by the Canadian Department of National Revenue, the price of the Company's Common Shares was \$25.50.

## Comparative Highlights

	1972	1971*
Sales .....	\$56,062,000	\$23,112,000
Equity in earnings of associated companies .....	\$11,313,000	\$ 9,587,000
Net earnings before extraordinary items .....	\$12,547,000	\$ 7,095,000
— per share .....	\$ 2.10	\$ 1.19
Net earnings after extraordinary items .....	\$16,649,000	\$ 7,095,000
— per share .....	\$ 2.78	\$ 1.19
Common shares outstanding (net) .....	5,983,815	5,979,955
Working capital .....	\$27,043,000	\$17,209,000
Copper produced—pounds per share .....	20.41	9.46
Exploration expenses .....	\$ 6,233,000	\$ 4,377,000
— per share .....	\$ 1.04	\$ 0.73
Capital expenditures (net) .....	\$12,439,000	\$49,624,000
Number of shareholders .....	5,200	5,800
Number of employees .....	3,729	3,678

\*Restated for comparative purposes.



## Directors' Report to the Shareholders

The Board of Directors is pleased to present herewith the Forty-Seventh Annual Report of your Company. Your Company's operations were very successful and earnings reached a record level in 1972, although prices for copper and molybdenum did not reflect the general economic recovery. The earnings improvement was due primarily to the commencement of operations by Gibraltar Mines Ltd. (N.P.L.), in which Placer holds a 71% interest.

### FINANCIAL

Consolidated net earnings for the year ended December 31, 1972 were \$16,649,000 after extraordinary items, or \$2.78 per share as compared to \$7,095,000 or \$1.19 per share in 1971. Following the increase in earnings which became evident early in 1972 and the resulting improvement in cash flow, your Directors increased the quarterly dividend from 15c to 20c per share in June and to 30c per share in September. Total dividends paid during the year amounted to 95c per share. Because of the continuing improvement, your Directors in February, 1973 increased the quarterly dividend to 40c per share.

Placer's working capital position increased sharply from \$17,209,000 at the end of 1971 to \$27,043,000 on December 31, 1972. At year-end, the Company's cash position, including marketable securities, was \$16,055,000 as compared to \$9,986,000 in the previous year.

Commencing January 1, 1972 the Company adopted the equity method of accounting for investments in companies in which its interest is 20% to 50%. In prior years investments in companies other than subsidiaries were

accounted for on the cost basis, except for Placer Exploration Limited and Cortez Gold Mines, which were recorded at the underlying equity in net assets. Under the equity method, adopted to comply with changes in generally accepted accounting principles, the Company records its share of the earnings or losses of associated companies rather than dividends received. This change has resulted in increased net earnings of \$1,572,000 in 1972.

Accumulated exploration and other expenses, incurred in prior years and applied against current taxable income, contributed to a reduction of taxes paid in 1972. At the end of 1972 a further \$11,000,000 was available for application against future taxable income.

The most significant effect on your Company's earnings was made by Gibraltar which recorded net earnings of \$8,352,000 or 73c per Gibraltar share during its nine months of operation to December 31, 1972. Production during this period was 132,100 tons of concentrate containing 80,023,000 pounds of copper. The development loan of \$63,918,000 was reduced by \$7,500,000 during 1972.

In addition to Gibraltar, a number of associated companies contributed to Placer's improved financial results in 1972. Extraordinary items contributed in excess of \$4,000,000.

Marcopper Mining Corporation reported net earnings of 111,846,000 pesos, equivalent to \$16,111,000 for the year ended December 31, 1972.

Marcopper commenced paying dividends in February, 1972 and during the year paid regular quarterly dividends equal to 15 centavos per Marcopper share. Under

the terms of a sale to Philippine nationals of option rights to 25% of the Marcopper shares, Placer receives the equivalent of 90% of the dividends paid on those shares. During the year, Placer received U.S. \$3,090,000 which has been included as extraordinary earnings in the financial statements. Of the original U.S. \$10,000,000 option price, U.S. \$5,910,000 remains to be paid from future dividends.

Mattagami Lake Mines Limited (N.P.L.) reported net earnings in 1972 of \$14,340,000 or \$2.17 per share compared to \$5,737,000 or 87c per share in 1971. Dividends amounting to \$1.20 per Mattagami share were paid during the year.

Cortez Gold Mines, in which Placer holds a 28.3% interest, benefitted from the higher price of gold in 1972. It reported net earnings of U.S. \$4,752,000 compared with a net loss of U.S. \$505,000 in 1971. Unfortunately, this operation is now nearing the end of its ore reserves and the performance is not likely to be repeated.

Craigmont Mines Limited reported net earnings for the year ended October 31, 1972 of \$2,531,000 equivalent to 50c per share, compared to \$2,925,000 or 58c per share for the same period in 1971. The decrease in earnings reflected the low price of copper prevailing in 1972 and less favourable terms in the sales contract. The quarterly dividend, previously 25c per share, was reduced to 15c per share with the dividend declared in October, 1972.

The Canex Tungsten Division, owned and operated by Placer since 1947, will cease operations in 1973. Since 1970, when the lead-zinc orebody was exhausted, the remaining reserves of tungsten ore were mined and it is estimated that this phase will be completed by August.

#### MARKETING

Copper prices through 1972 remained in a low range, averaging U.S. 48.56c

per pound. Improvement was evident at year-end, however, and the price has continued to move up strongly in the first months of 1973. Inventories are still moderately large and some concentrate from new sources will be available in 1973. Despite this, it is anticipated that the higher price levels will be maintained through the year although wide price fluctuations may be expected. The force majeure restrictions on shipments of copper concentrate to Nippon Mining Company Limited continued in effect through 1972 and sales to other smelters were arranged for the surplus production. Nippon Mining will complete construction of new smelting capacity in 1973 and it is anticipated that normal sales of copper concentrate to that company will be resumed by the end of the current year.

Although demand for molybdenum improved toward year-end, there was no change in price. The improvement allowed some reduction in inventory to 7,947,000 pounds by December 31, 1972.

#### NEW GUINEA INTERESTS

In late 1972 an offer was received from Japanese interests for the purchase of Placer's total investment in Papua New Guinea, apart from exploration activities. The offer is for Placer's 65% equity in Commonwealth-New Guinea Timbers Limited and 100% of Territory Fisheries Pty. Limited. Approval for the transaction is currently being sought from the Governments of Papua New Guinea, Australia and Japan.

#### CORPORATE RE-ORGANIZATION

The name of Canadian Exploration Limited was changed in October, 1972 to Canex Placer Limited to complete the consolidation of your Company's Canadian operations and to identify readily these operations with Placer. Canex Placer operates the tungsten and molybdenum mines and carries out all exploration in Canada.

Canex Aerial Exploration Ltd., a subsidiary which formerly administered most of the Company's exploration in Canada, has become inactive.

#### EXPLORATION

Our industry depends on development of non-renewable resources and must constantly seek new ore reserves for future operations. In recognition of this fact, your Directors have reaffirmed Placer's policy of active exploration consistent with earnings and a reasonable return to the shareholders. In 1972, a total of \$6,233,000 was spent on exploration. Of this total, 57% was spent in Canada where several prospects of interesting potential are under investigation.

#### STOCK SPLIT

The Board of Directors is recommending a two-for-one split of Placer's shares for approval by the shareholders at the Annual General Meeting. Your Directors believe the division, which will result in a lower market price per share, should broaden the market for the stock.

#### BRITISH COLUMBIA LEGISLATION

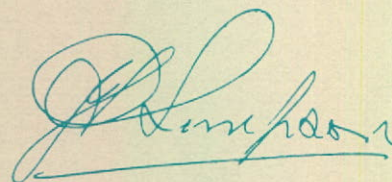
The economic climate for the mining industry in British Columbia has deteriorated since the beginning of the current year. The new government has proposed wide-ranging amendments to

the Mineral Act of British Columbia. The most fundamental of these would remove the right of a mineral claim holder to place his claim into production and would substitute a production lease, granted at the discretion of the government at the time of a production decision. These amendments, if enacted, will create such investment uncertainty that exploration for new mineral properties in the province will be seriously inhibited.

#### ACKNOWLEDGEMENT

The role of Placer's employees was significant in the achievements of the past year and we wish to record, on behalf of the Board of Directors, our appreciation for their efforts.

*On behalf of the Board*



*Chairman*



*President*

Vancouver, B.C.  
March 7, 1973.

## Metals and Markets

### GENERAL

World consumption of every major metal increased in 1972 owing to a substantial recovery from the very depressed economic conditions of 1971. While the prices of some metals, notably zinc, silver and gold, increased, there were more than sufficient supplies of other metals, including copper and molybdenum, available from new production and from surplus accumulated in 1970 and 1971 and prices for such metals remained low.

### COPPER

Prices in North America and overseas were stable in 1972 but remained at a relatively low level since enough copper was available to meet demand at all times. Apart from some production losses in Chile which were expected, output from mines and smelters was high. The stable low price and expanding economies encouraged consumption which increased 9% over the previous year. This growth has continued through the first months of 1973 and has been an important factor leading to the recent higher prices of U.S. 60c per pound in the United States and U.S. 60c to U.S. 70c per pound in other markets.

Nippon Mining Company Limited, with which Craigmont, Gibraltar and Marcopper hold sales contracts covering their entire production, continued to operate under a partial force majeure condition owing to air pollution restrictions in Japan. During 1972, Nippon Mining was able to receive only 80% of the expected concentrates from the supplying mines. Enough copper concentrate was sold to other smelters however, to prevent any unusual accumulation of inventory by the mines in the Placer group.

### MOLYBDENUM

Owing to increasing activity in alloy steel mills, demand increased steadily through the year, showing a 12%

improvement over 1971. The substantial stocks which were accumulated in the depressed alloy steel markets of 1971 were, however, more than adequate to fill all requirements. Prices gradually deteriorated from the posted levels of U.S. \$1.92 per pound for molybdenum in molybdic oxide and U.S. \$1.72 per pound for molybdenum in molybdenite concentrate as sellers sought to compete. Deliveries improved for the Endako Mines Division in 1972 and the trend should continue through 1973.

### TUNGSTEN

Consumption remained low although somewhat higher than in 1971. Prices were depressed and declined irregularly from U.S. \$39 per short ton unit in January, 1972 to U.S. \$30.50 in December, 1972. Subsequently the price has risen to U.S. \$37.50 per short ton unit. Since significant improvement in demand is expected in 1973, a return to the very low prices of 1972 is not anticipated. Due to depressed prices, a portion of the tungsten production was withheld from the market.

### ZINC

During the second quarter, a shortage occurred in the United States. The market remained strong through the year and the price for Prime Western Grade increased from U.S. 17c at the beginning of the year to U.S. 19c per pound at year-end in the United States. In Europe, it rose from U.S. 17.5c to U.S. 18.5c per pound. The increase has continued into early 1973, reaching approximately U.S. 20.5c and U.S. 21.3c per pound respectively in those markets.

Following the closure of several United States plants, a shortage of processing capacity has developed in North America and mines such as Mattagami Lake Mines Limited (N.P.L.), which have capacity readily available to them, are in an advantageous position.

## GOLD

The average price of gold during 1972 was U.S. \$58.10 per ounce, compared to U.S. \$40.79 in 1971. Anticipation of further currency revaluations has led to reliance on gold, which is increasingly considered to be a standard of real value, rather than money. In addition, South Africa continues to withhold part of its production from the market since it does not need the foreign exchange. As a result, the price of gold has reached new high levels and a return to official Central Bank levels is not expected.

## Operations

### Canada

#### ENDAKO MINES DIVISION (100% interest)

During 1972, Endako treated 6,382,000 tons of ore at an average grade of 0.149% MoS<sub>2</sub> to produce a total of 9,237,000 pounds of contained molybdenum consisting of 1,674,000 pounds in molybdenite concentrate and 7,563,000 pounds in molybdic oxide.

Molybdenum production was reduced in March, 1972 to 50% of 1970 levels in order to decrease inventory. At year-end 7,947,000 pounds of contained molybdenum were in inventory as compared to 10,038,000 pounds at the end of 1971. It is anticipated that this inventory will reach the desired levels by mid-1973, at which time a return to full production will commence. On the basis of operating days the mill functioned 96.2% of available time, throughput averaged 24,150 tons per day, with a metallurgical recovery of 81.2%. The roaster, which produces molybdic oxide, operated at maximum capacity through the year. Enlargement of roaster capacity is being considered in order to meet an increasing demand for oxide.

Most of the ore continued to be mined from a relatively low-grade zone of the pit. As in the past, some ore from this area has had an adverse effect on metallurgical recovery. Recovery is expected to improve as mining progresses westward in 1973. Additional flotation cells are planned for the mill circuit to increase retention time and give better overall recovery.

The purchase of additional pit equipment is anticipated during 1973 due to higher waste/ore ratios and longer haulage distances.

Mineable ore reserves at December 31, 1972 were:

	Tons	MoS <sub>2</sub>
Endako Pit (0.08% cutoff)		
—proven and probable . . . . .	188,500,000	0.143%
—possible . . . . .	23,000,000	—
Denak Pit (0.10% cutoff)	5,400,000	0.232%

The collective agreement with the United Steelworkers of America will expire in October, 1974.

#### TUNGSTEN DIVISION (100% interest)

During 1972, the mill treated 198,000 tons of ore, averaging 0.58% WO<sub>3</sub> of which approximately one-fifth was recovered as high-grade table concentrate.

The average price received during the year was \$34.05 per short ton unit of WO<sub>3</sub> f.o.b. Vancouver. Sales were reduced in anticipation of a stronger market, and inventory at year-end was 53,275 units, an increase of 30,355 units during the year.

Improvements in the operation of the concentrator resulted in an average throughput of 529 tons per day and a recovery of 81.5%.

Year-end reserves of broken and unbroken ore were 104,000 tons at 0.55% WO<sub>3</sub>. It is expected that this reserve will be depleted by mid-1973 at which time the operation will be terminated.

Arrangements are being made to assist employees to relocate and disposal of assets and reclamation of the site will be carried out following closure of the mine.

#### GIBRALTAR MINES LTD. (N.P.L.) (71.22% interest)

Operation of the Gibraltar concentrator commenced on April 1, 1972 following three weeks of run-in trials. To December 31, 1972 it treated a total of 11,243,000 tons of ore at an average grade of 0.46% copper. A total of 82,049,000 pounds of copper in concentrate was produced during run-in trials and the nine months of operation.

For the nine months of operation April 1 to December 31, 1972 Gibraltar reported



net earnings of \$8,352,000, equivalent to 73c per share after provision of \$3,787,000 for depreciation, depletion and amortization.

The term loan of \$63,918,000 was made by the Canadian Imperial Bank of Commerce and The Bank of Nova Scotia to finance construction and equipment of the mine. Annual repayment is to equal 75% of the net cash flow with minimum quarterly payments of \$2,500,000. Remittances in 1972 were equal to \$7,500,000, composed of two quarterly installments of \$2,500,000 each and an extra payment of \$2,500,000. An average interest rate of 7½% was applied to the loan during the operating period in 1972. Following a scheduled quarterly payment of \$2,500,000 on January 31, 1973, the loan balance was \$53,918,000.

A \$5,000,000 line of credit was arranged to balance receipts from intermittent shipments of concentrate and to meet capital expenditures required to bring mine production into balance with present plant capacity.

The concentrator quickly achieved design capacity of 30,000 tons per day and from April 1 to year-end, treated an average of 39,500 tons per calendar day, operating 94.2% of available time. Copper recovery, at 80.4%, was adversely affected by the oxide copper content of

the Gibraltar East Deposit which is now being mined.

No saleable molybdenum concentrate was produced as molybdenum content in the ore was below economic level.

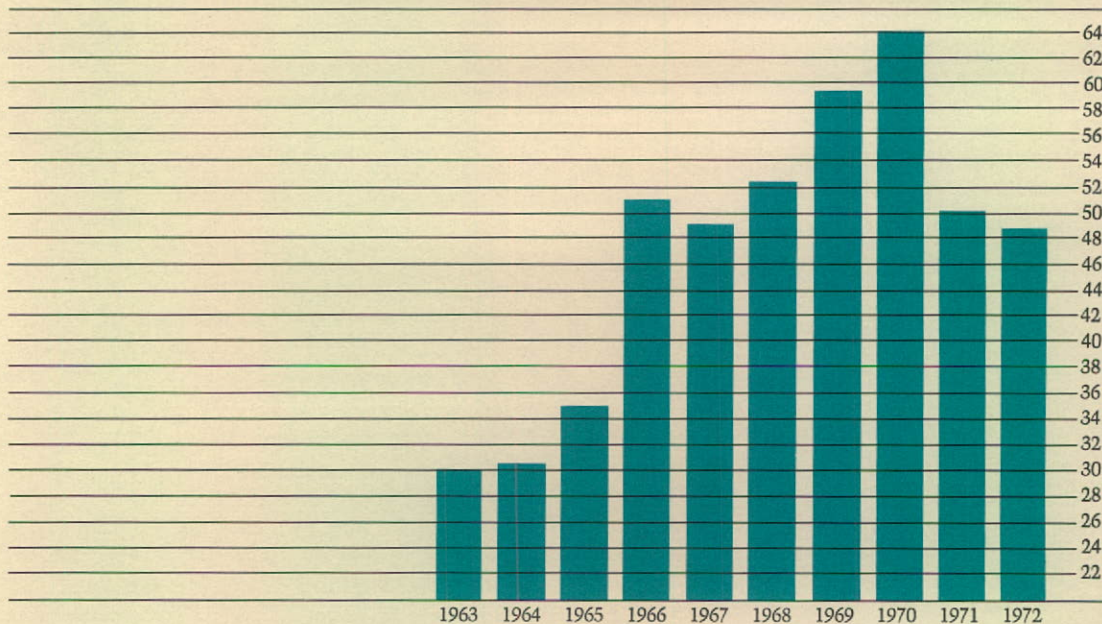
Production from the Gibraltar East Pit during the year was 26,443,000 tons of ore, waste and overburden at an average rate of 77,300 tons per day. To accelerate stripping of the pit, an additional 4,038,000 cubic yards of overburden were moved by contractor.

Detailed studies have indicated that production of ore, waste and overburden should be increased to 120,000 tons per day to balance maximum concentrator capacity. A total capital expenditure of \$4,800,000 to be made during 1972, 1973 and 1974 will bring pit equipment to the required 120,000 ton-per-day capacity. Most of this equipment was operational early in 1973.

Clearing of the Granite Lake Pit area was completed in preparation for stripping of overburden in early 1973. Ore production is expected to commence in early 1974.

The average copper price received during the year was U.S. 46.4c per pound before smelter deductions. Most concentrate sales were made to Nippon Mining Company Limited and inventory at year-end was minimal.

YEARLY AVERAGE COPPER PRICES PER LB.  
(L.M.E. Cash Settlement Wirebars—U.S.c)



At December 31, 1972 mineable ore reserves, at a cutoff grade of 0.25% copper, were estimated at 347,000,000 tons containing 0.371% copper.

The collective labour agreement will expire on February 28, 1974.

**CRAIGMONT MINES LIMITED**  
(44.59% interest)

Craigmont reported net earnings for the fiscal year ended October 31, 1972 of \$2,531,000, equivalent to 50c per share after provision of \$1,882,000 for depreciation and depletion and \$1,719,000 for income and mining taxes. Net earnings in 1971 were \$2,925,000 or 58c per share. Dividends amounting to 90c per share were paid during the 1972 fiscal year. Two factors were significant in their effect on earnings. The average copper price received during the year was a low U.S. 48.79c per pound before smelter deductions. A longshoremen's strike in August delayed shipments, thereby creating a large inventory of 19,700 tons of concentrate at October 31, 1972. This inventory was eliminated by December.

Ore production increased and concentrator performance improved significantly during the fiscal year. Craigmont treated 1,874,000 tons of ore containing 1.34% copper to produce 47,182,000 pounds of copper in concentrate. The daily average throughput was 5,120 tons. Expansion of the magnetite plant to an annual capacity of 50,000 tons was completed at year-end.

The concentrator operated 97.2% of available time. The increased mill throughput was mainly attributable to the installation of electronic control equipment on one grinding circuit. Similar equipment will be incorporated on the second circuit in early 1973.

Average underground production from the sub-level caving operation increased to a record level of 4,850 tons per day. No difficulties are anticipated in maintaining this rate. Estimated geological ore reserves at October 31, 1972 were 10,250,000 tons with an average grade of 1.77% copper at a 0.7% copper cutoff.

On-property exploration during the year consisted of detailed underground drilling which did not locate new areas of

potential mineralization. This aspect of the company's exploration activity was, therefore, terminated. Off-property exploration was continued through the year and a number of properties in the Kamloops area of British Columbia were examined.

A one-year collective agreement with the United Steelworkers of America became effective September 16, 1972 and provides for an average increase of 8% with improvements in fringe benefits.

**MATTAGAMI LAKE MINES LIMITED**  
(N.P.L.) (27.16% interest)

The consolidated net earnings of Mattagami for the fiscal year ended December 31, 1972 were \$14,340,000 or \$2.17 per share after an extraordinary item, as compared to \$5,737,000 or 87c per share in the previous year.

The increased earnings are attributable to higher zinc prices during 1972, income from Mattabi Mines Limited, reduced depreciation and an extraordinary item resulting from the sale of certain ore reserves in the Mattabi area.

The mine at Matagami, Quebec operated at capacity throughout the year. Concentrator throughput averaged 3,744 tons per day for a total of 1,370,000 tons of ore grading 7.4% zinc and 0.56% copper. Production was 172,000 tons of zinc concentrate and 23,000 tons of copper concentrate. Sales of zinc concentrate, amounting to 192,000 tons, included a carry-over from the previous year. Ore reserves at year-end were 14,662,000 tons, averaging 8.9% zinc and 0.67% copper.

The Canadian Electrolytic Zinc plant at Valleyfield, Quebec operated at full capacity, producing 145,000 tons of slab zinc and 854,000 pounds of cadmium. Year-end inventory was 5,948 tons of zinc. Plans have been made to increase the capacity of this plant from 400 to 600 tons of zinc per day at an estimated capital cost of \$30,000,000.

Mattabi Mines at Sturgeon Lake, Ontario, owned 60% by Mattagami, completed its construction programme and commenced production in July. Plant capacity is a nominal 3,000 tons per day. From start-up to the latter part of the year, the mine treated 438,000 tons of ore grading

11.97% zinc, 1.27% copper, 1.27% lead, 0.007 ounces of gold and 4.99 ounces of silver. Production totalled 80,400 tons of zinc concentrate, 17,800 tons of copper concentrate and 2,700 tons of lead concentrate. Net earnings for the year were \$4,418,000. Ore reserves at year-end were estimated at 12,427,000 tons grading 0.007 ounces of gold, 3.13 ounces of silver, 7.6% zinc, 0.9% copper and 0.8% lead.

Exploration of Mattagami's properties in the Sturgeon Lake area continued and three orebodies of moderate size have been located in Claims Group 23. At year-end Mattagami sold its portion of one ore zone, which straddled the common boundary between its claim and those controlled by another company, to the other company for \$3,000,000. The portion sold contained approximately 425,000 tons of ore extractable by open pit mining methods. Ore reserves still held by Mattagami in Claims Group 23 are estimated at 2,300,000 tons, grading 7.8% zinc, 1.3% copper and 0.76% lead. No plans have been formulated to develop and mine this ore at an early date.

#### **United States**

##### **CORTEZ GOLD MINES (28.3% interest)**

The great improvement in the price of gold during 1972 resulted in a similar improvement in the earnings of Cortez. The operation reported net earnings of U.S. \$4,752,000 after provision of U.S. \$2,972,000 for depreciation and amortization. This compares with a net loss of U.S. \$505,000 in 1971.

Total gold production during 1972 was 190,600 ounces, of which 153,000 ounces were produced from open pit ore and 37,600 ounces were produced from the heap leaching of low-grade ore.

Bullion settlements during 1972 averaged U.S. \$59.39 per ounce.

The cyanide plant treated 803,000 tons of ore containing 0.214 ounces of gold per ton at an average rate of 2,194 tons per day and a recovery of 88.9%. By year-end a total of 1,620,000 tons of low-grade ore was under treatment by heap leaching.

A heavy flow of water, encountered in the main Cortez pit, prevented full recovery of all remaining ore and mining

of the Cortez orebody was terminated at the end of February, 1973.

Negotiations have been completed for the mining and milling, subject to a royalty, of an estimated 800,000 tons of ore at a grade of 0.124 ounces of gold per ton, located on a nearby property. In addition, approximately 2,000,000 tons of low-grade ore, averaging 0.041 ounces of gold per ton, will be heap leached at the same location. It is estimated that this will provide an additional 15 months of operation for the Cortez mill.

#### **Philippines**

##### **MARCOPPER MINING CORPORATION (40% interest)**

Marcopper reported net earnings for 1972 at the equivalent of \$16,111,000 after provision of \$4,399,000 for depreciation, depletion and amortization and \$4,241,000 for income tax.

Copper production during 1972 increased to 97,773,000 pounds of copper of which 89,828,500 pounds were recovered as concentrate and 7,946,000 pounds were recovered from leaching operations. This compares to 96,524,000 pounds of copper produced in 1971. In addition, 41,500 ounces of gold and 203,800 ounces of silver were produced.

The concentrator treated 7,648,000 tons of ore at a grade of 0.70% total copper, recovering 83.9% of the contained copper. The average throughput of 20,900 tons per calendar day was an increase of 14% over the 1971 rate and was achieved through increased operating efficiency, improved blending of ores and improvements in the grinding circuit.

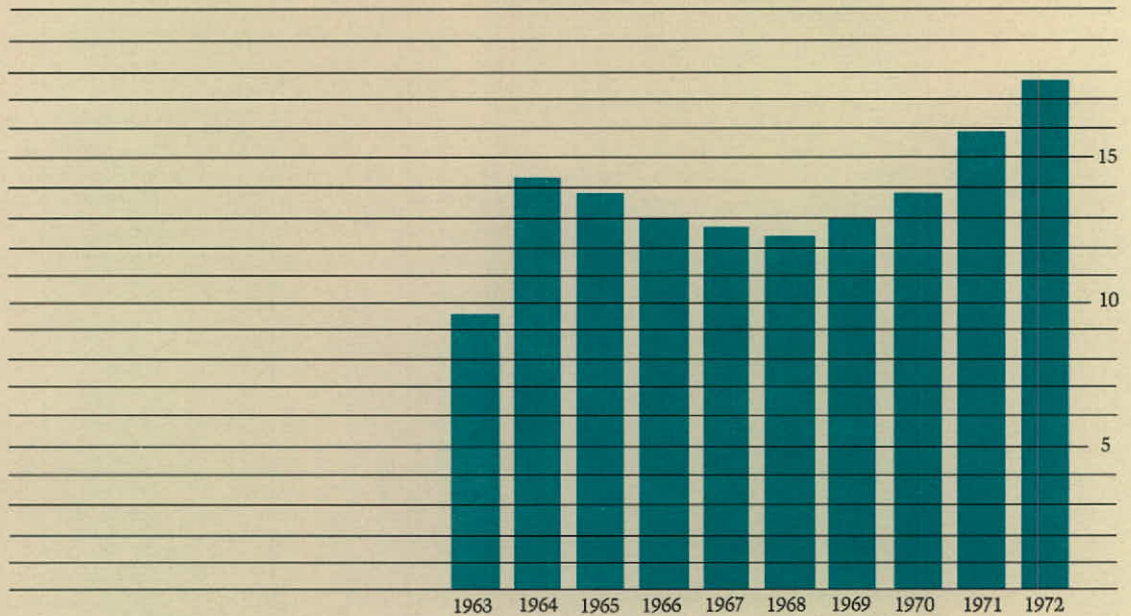
Mineable ore reserves at December 31, 1972 were 117,800,000 tons at an average grade of 0.59% copper.

Capital expenditures during the year amounted to \$3,523,000 and included the purchase of additional pit equipment to maintain pit production at the increased milling rate and expansion of maintenance shop and townsite facilities. Equipment is now being installed to increase the capacity of the tailing pumping system.

Construction of pit drainage and dewatering tunnels continued. A project

## YEARLY AVERAGE ZINC PRICES PER LB.

(G.O.B. Producer's Price—U.S.c)



incorporating a 500-meter tunnel and two earthfill dams was initiated to divert a river away from the main waste dump areas and to contain the waste. These projects will result in substantial capital expenditures during 1973 and 1974.

A study of pit expansion requirements is underway to determine optimum cutoff grades and strip ratios for future pit development.

During the first five years of development and operation, Marcopper was exempt from all Philippine taxes with the exception of income and export taxes. This exemption terminates in May, 1973 at which time Marcopper will be subject to import duties and to taxes on land and improvements.

### **Australian Operations (50% Interest)**

Operations in Australia are conducted by Placer Exploration Limited, which is owned equally by Placer Development Limited and Kaiser Aluminum & Chemical Corporation. In 1972 these operations showed a loss of \$2,169,000 which included exploration expenditures totalling \$2,061,000. Placer's portion of this loss is reflected in the equity in earnings of associated companies.

### **FOX MANUFACTURING COMPANY**

Capital equipment manufacturers,

particularly those such as Fox with a large portion of their total sales in coal mining equipment, suffered a severe downturn in trading during 1972. In these circumstances, the company reported sales of \$7,353,000, down from the 1971 record level of \$10,652,000.

### **PLYWOOD MANUFACTURING**

Sales during 1972 totalled \$3,735,000 compared with \$4,622,000 in 1971. Early in the year, sales were adversely affected by a slowdown in the Australian economy although an improving trend developed later in 1972. This trend is expected to continue into 1973 despite a dampening effect from the revaluation of the Australian dollar.

### **MOLYBOND LABORATORIES**

Sales of "Molybond" specialty lubricants totalled \$524,000, compared with \$612,000 in 1971. The reduction in sales resulted from a decision to discontinue production of refined molybdenum disulphide powder, a product with a low profit margin.

### **NORTHERN CATTLE CO. PTY. LIMITED**

Owned 50% by Placer Exploration Limited, this company operated profitably despite dry seasonal conditions. Cattle numbers increased from 68,088

head at the end of 1971 to 74,659 on December 31, 1972. Livestock sales rose from \$834,000 in 1971 to \$1,138,000 in the current year.

The export market for beef continues to be buoyant and access to the stable domestic market has been enhanced by development of the breeding and fattening property in Western Australia.

### **New Guinea Operations**

COMMONWEALTH-NEW GUINEA  
TIMBERS LIMITED (65% interest)

On June 29, 1972 Placer's interests in Papua New Guinea were acquired by Commonwealth-New Guinea Timbers Limited. Placer's interest, formerly 49.9%, increased to 65% in the consolidated company. Placer's portion of the net earnings of these operations in 1972 was \$1,039,000.

Plywood production at the Bulolo Timbers Division, formerly Commonwealth-New Guinea Timbers, was 38,250,000 square feet (on a 3/16" basis) as compared to 41,650,000 square feet in 1971. Sales in 1972 were \$4,286,000 compared to \$4,422,000 in 1971. Plywood sales to Australia were 20% lower than in 1971, due to increased competition from Southeast Asian producers, while sales of plywood and joinery items in Papua New Guinea remained buoyant. Sales of South Pacific Timbers Division amounted to \$1,647,000 in 1972, compared to \$1,440,000 in 1971. Log production for the year was 25,000,000 super feet as compared to 19,000,000 super feet in 1971. The increase was due to much drier logging conditions and improved plant performance. The company is seeking additional timber permit areas. Due to the increased availability of peeler logs, veneer production at 65,000,000 square feet (on a 1/16" basis) was 25% higher than in 1971. Exports to the Australian market accounted for 35% of this output. Production and sales of sawn timber remained steady.

The pastoral operations experienced the worst drought conditions since commencement and it was necessary to supply supplementary feed to breeding cows. Stock losses attributable to drought, however, were minor and sales in 1972 were \$264,000, compared to \$193,000 in 1971. At year-end the herd totalled 7,697

head in comparison to 7,593 at the end of 1971.

### **Portugal**

MINAS DE TERRAMONTE LDA.  
(25% interest)

Operations in 1972 continued, as in the previous year, on a break-even basis. No repayment was received on advances due to low metal prices and higher operating costs. Consideration is being given to terminating operations at the end of 1973.

The concentrator treated 76,000 metric tons, grading 1.7% lead, 2.6% zinc, and 3.2 troy ounces of silver per metric ton to produce 1,860 tons of lead concentrate and 3,120 tons of zinc concentrate. The concentrate was sold to smelters in Europe.

Ore reserves as of December 31, 1972 were reported to be 200,000 metric tons with an average undiluted grade of 2.3% lead, 2.2% zinc, and 4.0 ounces of silver per metric ton. Sufficient ore was developed during 1972 with the depth extension of the mine to 390 meters to replace that treated in the concentrator.

### **Exploration**

Exploration activities increased during 1972, with expenditures of \$6,233,000, compared with \$4,377,000 in 1971. The major portions of these expenditures were incurred in Canada and the United States. In Australia, Placer Exploration Limited (50% interest) incurred exploration expenses of \$2,061,000.

#### **HARD MINERALS**

In Western Canada, Placer crews discovered a promising area of lead/zinc mineralization along the Yukon/Northwest Territories border and 450 mineral claims were staked in the area. Evaluation of the mineral showings in this area is in a very preliminary stage and an exploration programme is planned for the summer of 1973.

Other programmes carried out during the year included the evaluation of a magnesite property in the East Kootenay area of British Columbia and a porphyry copper/molybdenum prospect near Houston, British Columbia.

Exploration and evaluation of the copper property of Afton Mines Ltd. (N.P.L.)

near Kamloops, British Columbia, were suspended from mid-1972 until late December pending a judgement in a court action instituted by Teck Corporation to set aside the contract between the Company and Afton. On December 8, 1972 the court upheld the contract and exploration on the property was resumed soon after that date although a strike by diamond drill crews in early 1973 further delayed work. Teck Corporation has appealed the judgement and it is expected that the hearing will be held in the fall of 1973.

In Eastern Canada, exploration directed from the Toronto office was focused primarily on the search for massive, base metal sulphide deposits.

Placer's wholly-owned subsidiary, American Exploration & Mining Co., continued an active exploration programme in the western United States and Alaska.

The major project of Placer Exploration Limited (50% owned) in Australia continued to be the further definition and extension, by surface drilling, of the lead/zinc/silver zone on the Lady Annie Property in Queensland. Present estimates of indicated and probable reserves are 8,600,000 metric tons of 6.54% lead, 17.66% zinc and 3.4 ounces of silver per metric ton. Drilling is underway to obtain samples for mineral dressing tests. The legal dispute regarding the eastern boundary was resolved satisfactorily.

No further exploration was carried out on the adjacent copper orebodies of the Lady Annie Property, but revised ore reserve estimates indicate total reserves of 3,873,000 metric tons at a grade of 1.91% copper.

In Mexico, an aggressive exploration programme is being continued. Negotiations are nearing conclusion with an Argentine Government agency for the rights to three porphyry copper prospects located in the Argentine Cordillera. During the year, exploration activities were initiated in South Africa. Following intensive exploration throughout Spain in which results proved negative, activities there are being terminated.

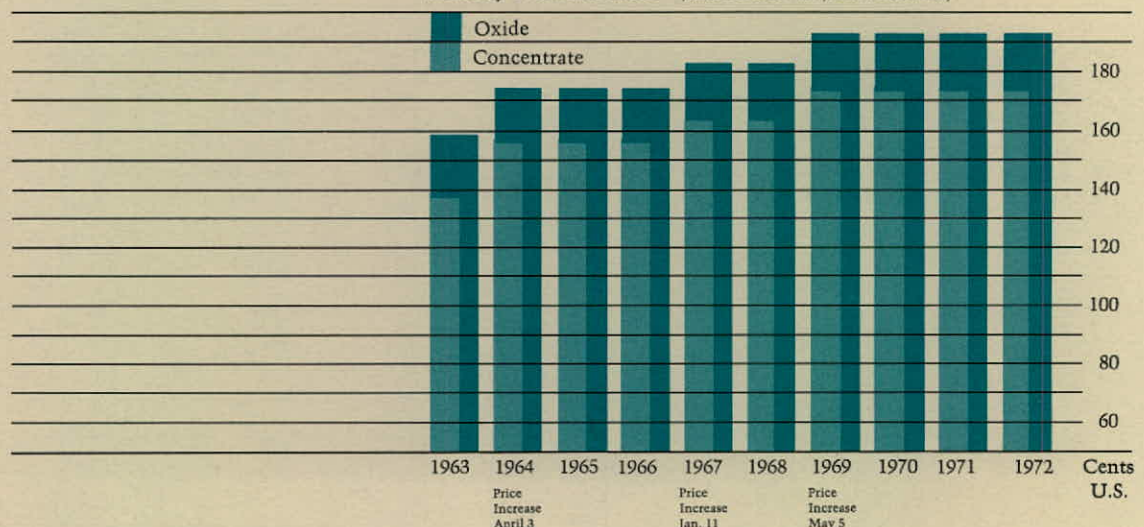
#### OIL AND GAS

Canex Placer participated in the drilling of 14 wells in Western Canada during 1972. Two new pool discoveries were made. In northeastern British Columbia, two oil wells and two gas wells were completed. Four gas wells were completed in Alberta. Three of the 14 wells were drilled through farmout agreements at no cost to Canex Placer. Acquisition of petroleum and natural gas rights continued during the year, principally in the discovery areas. The Company's portion of net reserves at year-end is estimated at 1,000,000 barrels of crude oil and 17.3 billion cubic feet of natural gas.

No drilling was conducted on the two permits in the Adriatic Sea, in which Placer has a 50% interest.

#### YEARLY AVERAGE MOLYBDENUM PRICE PER LB.

(Published Major Primary Producer Price—f.o.b. mine or f.o.b. roaster)



# The Mine Development Process

Mining, the extraction of minerals from the earth, is one of man's oldest commercial activities. Its key role in the history and development of humankind is indicated in such designations as "The Iron Age" and "The Bronze Age". Important as it was in the past, mining now has a significance that is difficult to measure accurately. Few of the approximately 900 million people in the world's industrialized societies pass a day in which they do not use or rely on a product of this industry. The needs of additional millions for better food, transportation, communication, housing and health is transmuted into a strong and continuous demand for the products of mining. The industry exists therefore, not because it wishes to, but because it must. For these reasons and because readers of this annual report will have more than a casual interest in the industry, the following article on the mine development process is presented.

## MINING:

### *Variation on a theme*

The objectives of mining have not changed through the centuries. A mineral—something of potential use and, therefore, of value—is recovered from the place where it naturally occurred in the earth. Aside from that similarity, however, mining methods of today bear little resemblance to those of the ancients. In place of the manual labour of thousands, required to produce a few tons of rich, accessible ore each day, modern mining has applied technology to achieve the reverse relationship—the effort of a relative few now produces thousands of tons of ore per day, often at low grades and from difficult locations. This advance in mining capability has

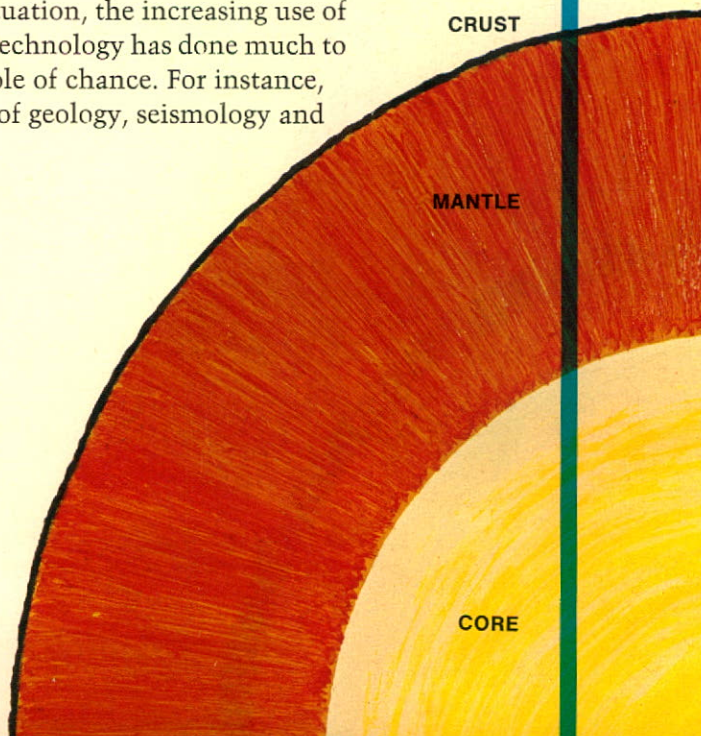
been possible because the industry has been quick to adopt a wide variety of new technologies which have been developed in recent years. Mathematics, economics, physics, chemistry and metallurgy, when combined with experienced judgement, are important tools in today's mining industry. For instance, they help to find and process ores in which the mineral is so minutely dispersed that its very presence would have been difficult to detect in previous ages.

The stories behind most mines will generally show that there are four phases: exploration, evaluation, development and operation. In many ways, the first phase is the most fascinating since all the others depend on the kind and quality of information obtained through exploration.

## EXPLORATION:

### *Following the geological clues*

So much has been said about the "luck" involved in finding an orebody that other significant aspects are often overlooked. While the search for minerals can still be compared to the traditional "needle in a haystack" situation, the increasing use of science and technology has done much to reduce the role of chance. For instance, the sciences of geology, seismology and



mineralogy, applied to mining, have helped to explain the physiochemical processes by which minerals are formed, deposited, altered and redeposited.

Mining exploration in the 20th century starts with an appreciation of our planet. The earth has three layers: the surface or crust is about 25 miles thick; next is the mantle, about 1,800 miles thick and composed of denser, heavier rocks; last is the core, believed to be mainly iron and nickel in a molten or semi-molten state. Additionally, the earth has been and still is a dynamic and constantly changing planet. These changes are extremely gradual and only occasionally give visible evidence of their existence in the form of volcanoes and earthquakes. Structural readjustments in the crust are caused by convection currents in the mantle which produce movement in the earth's surface. Shifting of the crust results in fracturing, which can release and channel molten material called *magma*. At the same time, the shifting creates openings in which magma may be cooled and crystallized as *intrusions*. Commercial minerals often occur as *sulphides* and if these are present in the magma, their concentration may

occur in the latter part of the intrusive phase as there is a tendency for some metal-bearing minerals to segregate themselves during cooling.

The earth is composed of a number of basic building blocks or elements, among which oxygen, silicon, aluminum and iron are abundant. Elements are seldom found in a pure state, but usually occur in combination with one or more other elements to produce a great variety of compounds. The rocks, themselves composed of the most common elements, may contain compounds known as *minerals*. If the minerals have commercial value and can be extracted profitably, they are known as *ores*. Minerals in the location and condition of their original deposition are called *primary* while those which have been moved or altered by other forces of nature, such as water or weathering, are called *secondary* or *supergene*.

*The existence of dynamic forces within the earth is indicated by mountains such as this in British Columbia. Movement of the crust, which forced the rock masses upward, is often associated with mineral occurrences.*







Most metals occur in a number of mineral forms, more than one of which may be present in the same body of ore. An ore may also contain more than one kind of metal. A *porphyry copper* type of deposit describes what is often a large volume of igneous or once-molten rock in which the copper sulphide minerals are disseminated as separate grains or in veinlets. *Chalcocite* is a commercially valuable copper sulphide mineral which may occur in different types of rocks, usually in a supergene form. Such is the type of classification and identification which geology and its related sciences bring to mining.

Any technology or body of knowledge that assists in locating and evaluating a mineral deposit is utilized. The most general techniques are employed in the first phases of exploration where large areas must be examined. They are usually designed to measure broad, non-specific parameters and indicate simply whether certain locations could host

*The search for minerals leads exploration teams into remote areas. Aided by sensitive electronic gear and other sophisticated methods of detecting mineralization, miners have been able to expand the resources needed to meet world market demands.*

mineral deposits. Geological maps, for instance, give preliminary clues by identifying areas where irregularities occur in the earth's crust.

More specific techniques are used when the potential field has been narrowed and there is an indication that "something" exists in a defined area. These methods often measure properties of the minerals themselves in contrast to those of surrounding structures and involve a variety of both physical and chemical techniques including radioactivity, electrical conductivity, density and magnetic field. It is here that the accessibility of the deposit also becomes an important factor. Some mineral deposits are close to the surface, but most such "outcroppings" have long

since been discovered. Exploration today demands techniques and equipment capable of detecting sulphide minerals deep beneath the earth's surface. One technique, geochemistry, identifies and measures trace elements which normally exist in plants, surface water and soil. Minute quantities of minerals can be detected down to, and in some cases beyond, one or two parts per million. A likely area for further exploration is indicated when metallic traces are found to be in excess of normal levels.

If all indications of mineralization are positive up to this point, the next step is direct sampling of the area. Drilling is the most common method of bringing specimens of buried rock to the surface. There are several types of drills such as diamond, rotary and percussion. Diamond drilling produces a cylinder, or core, of sub-surface rock which gives geologists and analytical laboratories an accurate indication of rock formations far beneath the ground. A sufficient number of cores must be taken to gain a proper perspective of the deposit's volume and configuration.

Seldom does one technique produce all the information required and a variety is often used together, each serving to reinforce or qualify, rather than replace, the others.

#### EVALUATION:

*When is a mine a mine?*

Eventually, the results of exploration are reviewed, evaluated and projected against the economic realities of production,

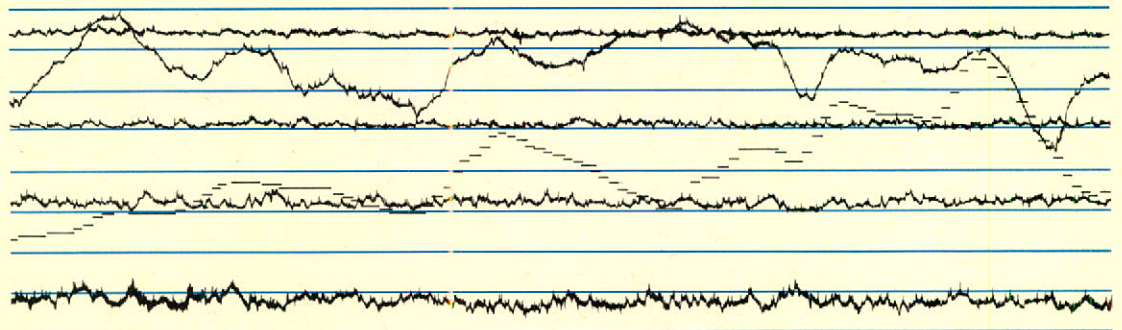
marketing and other practical parameters. Economic appraisal plays a most important role in the development process as it forms both the basis for a decision to proceed and, if accepted, a blueprint for future development.

It is worth noting here that even the most sophisticated technology cannot replace the experience of qualified individuals in the evaluation of a potential mine. The most accurate and detailed measurements inevitably leave gaps that must be filled by prediction and the final decision to develop—or not to develop—is a human one, based upon present evidence and past experience.

The analysis or feasibility study looks to both the past and the future in drawing its conclusions. Already in hand are the results and conclusions of the exploration programme—but yet to be estimated are such factors as production costs, types of equipment to be used and a host of other variables. Indeed, some factors such as market trends, are at best a calculated guess.

The estimated grade and quantity of ore in the ground is usually referred to as the *geological reserve*. But, since the total amount of ore present can be quite different from that which is extractable at

*These lines from a typical airborne scintillometer and magnetometer survey help mining geophysicists to "see" what lies beneath the surface of the earth. Correctly interpreted, such logs identify areas where more precise exploration techniques may be used.*





a profit, a *mining reserve* is calculated which allows for economic conditions, limitations of the mining method and dilution of the mineral by waste rock. A mining sequence or plan, based on various characteristics of the ore and surrounding rock, is also worked out.

A metallurgical analysis is required to determine the most efficient separation process for a particular mineral.

There are some minerals containing commercial metals for which no practical separation treatment now exists. The indicated metallurgical process is usually tested on a pilot plant scale so that the design requirements of a full-scale production plant may be accurately estimated.

With the mining and processing design in hand and the ore reserves indicated, the actual operating costs of an installation, its likely revenues, overall profitability and operating life may be estimated. The life of a mine is dependent not only

*This cross-section drawing illustrates the changes that occur beneath the surface as a result of geological forces. Sedimentary strata, at one time horizontal ocean floor, have been folded, tilted and thrust upward over adjacent sections. On the right, sedimentary rocks have been penetrated by a large magmatic intrusion which may contain metallic minerals.*

on the size of the orebody but also on the rate at which the ore is removed. By balancing the costs of development and operation with revenues, a mining rate and the expected life of the operation can be calculated.

Finally, the revenues of a mine, derived from the sale of minerals—usually in concentrate form—must be estimated from present and potential market values. At this point a projection of market trends must be made with an appreciation of possible variation in supply, demand and price. Events in many parts

*This sample of porphyry copper ore contains two types of copper minerals—chalcocite and chalcopyrite.*

- 1) *The dark blue spots on the upper surface are secondary chalcocite, coating pyrite and chalcopyrite within a vein of light-coloured quartz.*
- 2) *Chalcopyrite is present again in association with white quartz which is, in turn, enclosed within an envelope band of grey quartz-sericite.*
- 3) *Green chlorite occurs in a foliated zone of the rock.*
- 4) *The predominant country rock is quartz diorite.*



of the world can influence any of these factors: changes in taxation, tariffs or trade restrictions, for example, will affect the product's price and must be carefully considered by planners. The results may indicate a need for caution, delay or haste in the mine's development.

The feasibility study is, then, a comprehensive analysis of the entire mine operation that takes everything into account from machinery and metallurgy to taxes and transportation. Sometimes, to add a final measure of thoroughness, not one but three different projections are made, using pessimistic, optimistic and probable assumptions of income and costs.

Now the final question—"Should the mineral occurrence be developed into a mine?"—can be considered. This is the single, most critical decision that will be made, not only with regard to the future of the mine, but also for the business success of the developer and investor.

#### MINING AND MILLING:

##### *From earth to industry*

A reasonable profit projection opens the door to the final step of mine development—the construction of facilities for full-scale mining and processing of ore. The basic organization of these processes will already exist in the feasibility study, but such plans are based upon predictions and a degree of flexibility must be built into the design to allow for any changes that may be required during the life of the mine.

*Mining* is the process of removing ore from its original site beneath the earth's surface. However, since there are no "standard" orebodies, so are there no "standard" mine workings.

For instance, the nature of the deposit will indicate whether open pit or underground extraction will be used. Where an orebody is covered by a relatively shallow layer of overburden, *open pit*

mining may be practical in at least the initial stages. This type of mining utilizes highly mechanized methods of earth moving; indeed, its economics are usually based on tonnages possible only in surface operations with giant trucks and shovels. The recent availability of 100 to 200-ton ore trucks, which can be loaded in a few minutes by shovels lifting 15 cubic yards or more at a time, has significantly changed the profit potential of previously uneconomical orebodies.

Where a thick layer of overburden renders open pit mining impractical, the more traditional underground method must be used.

*Milling* is the primary step in the treatment of ore and is usually done at the mine. In certain cases, as with some gold ores, this treatment results in the extraction of a finished product on site. Most base metals, however, are found in a complex chemical form which cannot be converted directly into a pure metal. In such cases, milling simply extracts, or concentrates, the mineral so that it may be economically shipped to smelting facilities.

All milling processes begin with the crushing and grinding of ore to a size suitable for subsequent operations. These processes produce a particle that is just small enough to ensure liberation of the mineral from associated host rock.

*Crushing* refers to the first stages of this process: it reduces the coarse material from the mine to pebble-size in preparation for grinding, the term used to describe the final steps of crushing.

*Grinding* is usually accomplished in *rod* and/or *ball mills* where steel castings, tumbling within a rotating drum, further reduce the ore particles to a fineness which assures mineral liberation.

*Separation* processes are designed to remove the fine mineral particles from their association with the host rock.

*Unit costs drop as tons of ore mined increase. In this open-pit mine, four loads from the shovel are sufficient to fill a 100-ton ore truck.*



*Inside a concentrator the ore is finely ground in rod and ball mills (background) before entering the flotation bay (foreground) where mineral particles are separated from the host rock.*



Sulphide minerals of base metals can usually be separated from ore by the flotation process in which finely ground ore is mixed in water to form a slurry. Certain chemicals or *reagents* that coat only the desired mineral components are added in small amounts. Rising air bubbles cause the coated mineral particles to float to the surface where they are recovered. The waste rock, now called *tailing*, remains in the slurry. This process is capable of increasing the concentration of minerals manyfold and of separating several different minerals from a complex orebody.

#### MINING AND THE ENVIRONMENT

Tailing—often 95% or more of the ore—is the finely-ground rock remaining after separation of the commercial fractions. Its volume (tailing from a 20,000 ton-per-day concentrator may be equal to 19,000 tons) is such that it could become a problem if not contained. For this reason, a mine generally builds a *tailing pond* of a size sufficient to impound the tailing which will be produced over a period of years. Careful engineering goes into the site selection and the design of

this installation and, as a result, the tailing is held within a relatively small space with little or no effect on the surrounding area. As an additional benefit to both the mine and the environment, most of the water which carried the tailing to the pond is recovered and pumped back to the concentrator for re-use.

The shipment of concentrates to smelting and refining plants is the final step in the series of events that began with an interesting rock sample or the flicker of a needle on an electronic instrument. But the story does not end here, for while the life of any single mine is finite, the demand for minerals and their products is not. The entire sequence of events described here will need to be repeated many times and at an accelerated rate in the future to ensure continuation of a way of life that has already been labelled "The Technological Age".

*Copper concentrate arrives at rail siding prior to shipment to deepsea port. Metal content at this point is approximately 30% copper, as compared to 0.4% in original ore.*



## Consolidated Statement of Earnings

For the year ended December 31, 1972 (Note 1)

	1972	1971*
	(in thousands)	
<b>REVENUE:</b>		
Sales .....	\$ 56,062	\$ 23,112
Interest and other income .....	2,829	2,474
	<u>58,891</u>	<u>25,586</u>
<b>EXPENSE:</b>		
Cost of sales (Note 7) .....	35,977	15,097
Selling, general and administrative .....	4,252	2,346
Exploration .....	6,233	4,377
Interest on long-term debt .....	3,235	104
Amortization and depletion .....	1,473	796
Minority interest .....	2,623	—
	<u>53,793</u>	<u>22,720</u>
Earnings before the following .....	5,098	2,866
Equity in earnings of associated companies (Notes 3 and 6) .....	11,313	9,587
Earnings before income taxes and extraordinary items .....	<u>16,411</u>	<u>12,453</u>
Income taxes (Note 8):		
Current .....	3,577	824
Deferred .....	287	4,534
	<u>3,864</u>	<u>5,358</u>
Earnings before extraordinary items .....	12,547	7,095
Extraordinary items (Note 3) .....	4,102	—
Net earnings for the year .....	<u>\$ 16,649</u>	<u>\$ 7,095</u>
Earnings per share:		
Earnings before extraordinary items .....	<u>\$2.10</u>	<u>\$1.19</u>
Net earnings for the year .....	<u>\$2.78</u>	<u>\$1.19</u>

## Consolidated Statement of Retained Earnings

For the year ended December 31, 1972 (Note 1)

	1972	1971*
	(in thousands)	
Retained earnings, beginning of year:		
As previously reported .....	\$ 62,202	\$ 63,640
Adjustment for equity in accumulated earnings of associated companies (Note 6) .....	23,039	19,976
As restated .....	85,241	83,616
Earnings for the year .....	16,649	7,095
	<u>101,890</u>	<u>90,711</u>
Dividends paid—\$0.95 per share (1971—\$0.91) .....	5,683	5,470
Retained earnings, end of year .....	<u>\$ 96,207</u>	<u>\$ 85,241</u>

\*Restated for comparative purposes.

# Consolidated Balance Sheet

December 31, 1972 (Note 1)

Assets	1972	1971*
	<i>(in thousands)</i>	
CURRENT ASSETS:		
Cash, including time deposits .....	\$ 5,557	\$ 4,641
Marketable securities, at cost (which approximates market value) .....	10,498	5,345
Accounts receivable .....	10,323	6,915
Inventories (Note 4) .....	20,390	14,287
	<u>46,768</u>	<u>31,188</u>
AMOUNT RECEIVABLE FROM SALE OF OPTION RIGHTS—(U.S. \$5,910,000; 1971—U.S. \$9,000,000) .....		
	6,341	9,655
Less: Deferred credit arising therefrom (Note 5) .....	6,341	9,655
	<u>—</u>	<u>—</u>
INVESTMENTS AND OTHER ASSETS:		
Investments in associated companies (Note 6) .....	37,451	39,887
Other investments and recoverable deposits, at cost .....	2,330	2,295
	<u>39,781</u>	<u>42,182</u>
FIXED ASSETS, at cost:		
Plant, buildings and equipment (Note 7) .....	117,316	54,031
Less: Accumulated depreciation .....	36,985	27,390
	<u>80,331</u>	<u>26,641</u>
Construction in progress .....	—	48,725
Mining and other properties, less accumulated depletion of \$1,460,000 (1971—\$1,025,000) .....	10,766	9,903
	<u>91,097</u>	<u>85,269</u>
DEFERRED CHARGE:		
Preproduction, exploration and development expenses, at cost less amounts written off .....	9,138	7,671
	<u>9,138</u>	<u>7,671</u>
	<u>\$186,784</u>	<u>\$166,310</u>

\*Restated for comparative purposes.



# Placer Development Limited

<b>Liabilities and Shareholders' Equity</b>	1972	1971*
	(in thousands)	
<b>CURRENT LIABILITIES:</b>		
Accounts payable and accrued liabilities .....	\$ 6,373	\$ 6,937
Construction holdbacks .....	—	1,171
Income taxes payable (Note 8) .....	1,109	681
Long-term debt due within one year .....	12,243	5,190
	<u>19,725</u>	<u>13,979</u>
LONG-TERM DEBT (Note 9) .....	<u>45,119</u>	<u>45,033</u>
DEFERRED INCOME TAXES (Note 8) .....	<u>4,553</u>	<u>4,579</u>
MINORITY INTEREST IN SUBSIDIARIES .....	<u>5,387</u>	<u>1,802</u>
<b>SHAREHOLDERS' EQUITY:</b>		
Share capital (Note 10)—		
Authorized:		
10,000,000 common shares without nominal or par value		
92,000 exchangeable common shares without nominal or par value		
Issued:		
5,989,954 common shares (1971—5,986,094)		
less 6,139 common shares held by subsidiary company .....	7,020	6,903
Contributed surplus .....	8,773	8,773
Retained earnings .....	96,207	85,241
	<u>112,000</u>	<u>100,917</u>
 <i>Approved on behalf of the Board:</i>		
J. D. SIMPSON, <i>Director</i>		
T. H. McCLELLAND, <i>Director</i>		
	<u><u>\$186,784</u></u>	<u><u>\$166,310</u></u>

# Consolidated Statement of Changes in Financial Position

For the year ended December 31, 1972 (Note 1)

	1972	1971*
	(in thousands)	
<b>Financial resources were provided by:</b>		
Earnings for the year before extraordinary items .....	\$ 12,547	\$ 7,095
Add—		
Charges to operations not involving an outlay of working capital:		
Depreciation .....	6,729	3,627
Amortization and depletion .....	1,473	796
Minority interest in net earnings .....	2,623	—
Equity in earnings of associated companies (Notes 3 and 6) .....	(11,313)	(9,587)
Deferred income taxes .....	287	4,534
Other items .....	1,048	204
Total from operations before extraordinary items .....	<u>13,394</u>	<u>6,669</u>
Extraordinary items affecting working capital .....	3,676	—
Repayment of advances .....	164	2,635
Long-term debt .....	14,765	45,033
Increase (decrease) in minority interest in subsidiaries .....	1,188	(493)
Dividends received .....	12,355	4,984
Other items .....	836	(168)
	<u>46,378</u>	<u>58,660</u>
<b>Financial resources were used for:</b>		
Dividends paid .....	5,683	5,470
Net additions to fixed assets .....	12,439	49,624
Preproduction, exploration and development expenses .....	3,743	2,382
Reduction of long-term debt .....	14,679	1,293
	<u>36,544</u>	<u>58,769</u>
Increase (decrease) in working capital .....	9,834	(109)
Working capital at beginning of year .....	17,209	17,318
Working capital at end of year .....	<u>\$ 27,043</u>	<u>\$ 17,209</u>
<b>Analysis of Changes in Working Capital</b>		
Increase (decrease) in current assets:		
Cash, including time deposits .....	\$ 916	\$ (1,999)
Marketable securities .....	5,153	3,253
Accounts receivable .....	3,408	912
Inventories .....	6,103	6,890
	<u>15,580</u>	<u>9,056</u>
Increase (decrease) in current liabilities:		
Accounts payable and accrued liabilities .....	(564)	3,666
Construction holdbacks .....	(1,171)	1,171
Income taxes payable .....	428	(256)
Long-term debt due within one year .....	7,053	4,584
	<u>5,746</u>	<u>9,165</u>
Increase (decrease) in working capital .....	<u>\$ 9,834</u>	<u>\$ (109)</u>

\*Restated for comparative purposes.

# Notes to Consolidated Financial Statements

December 31, 1972

## NOTE 1 Significant accounting policies:

### Principles of consolidation—

The consolidated financial statements include the financial statements of the Company and all of its subsidiaries.

For purposes of inclusion in the financial statements, accounts prepared in foreign currencies have been restated in Canadian dollars. Current assets and current liabilities have been translated at year-end rates, other assets (and related depreciation and depletion) and liabilities substantially at the rates in effect on the dates of the relevant transactions. Amounts (other than depreciation and depletion) appearing in the consolidated statement of earnings are at average rates of exchange for the year.

The Company follows the equity method of accounting for its interest in associated companies (Note 6). The excess of the cost of the investments over the underlying equity in the net assets at the date of acquisition is being amortized on a straight line basis over the estimated lives of the operations, or twenty years, whichever is less.

### Depreciation and depletion—

Depreciation is provided over the estimated useful lives of the assets on the following bases:

- (a) buildings and machinery on a straight line basis,
- (b) mobile equipment on the diminishing balance method, and
- (c) other assets at varying rates and methods.

Depletion on mining properties is based on the estimated life of the mine, or twenty years, whichever is less.

### Deferred charges—

Current exploration expenditures are charged against earnings for the year, except where the expenditures relate to an indicated presence of economically recoverable reserves. Preproduction, exploration and development expenses relating to properties which are equipped for production, are written off over the estimated life of the mine, or twenty years, whichever is less.

### Deferred taxes—

Income taxes are recorded on the tax allocation basis recommended by the Canadian Institute of Chartered Accountants. Deferred income taxes

on the balance sheet primarily result from the difference between depreciation recorded for accounting purposes and capital cost allowance claimed for income tax purposes. In addition, deferred withholding taxes on the Company's equity in the undistributed earnings of Marcopper Mining Corporation are provided for and are netted against the Investments in associated companies.

## NOTE 2 Consolidation of accounts:

Gibraltar Mines Ltd. (N.P.L.), a 71% owned subsidiary, commenced production on April 1, 1972.

The approval of government and other regulatory bodies is being sought for the possible sale of Placer's New Guinea operations.

## NOTE 3 Extraordinary items:

The extraordinary items are represented by the following: (in thousands)

(a) Amount received from the sale of option rights, U.S. \$3,090,000 (Note 5) .....	\$3,314
Less: exchange loss thereon .....	261
	3,053
(b) Income tax adjustment arising from the application of prior years' exploration and other expenses against current taxable income (Note 8) .....	623
(c) Share of extraordinary gains of associated companies .....	740
(d) Other .....	(314)
	\$4,102

## NOTE 4 Inventories:

Inventories as at December 31, 1972 and 1971 comprise the following and are valued at:

	1972	1971
	(in thousands)	
Lower of cost or net realizable value:		
Concentrates .....	\$12,505	\$10,771
Manufactured products .....	1,307	332
	13,812	11,103
Lower of cost or replacement cost:		
Materials and supplies .....	5,763	2,533
Net realizable value:		
Livestock .....	815	651
	\$20,390	\$14,287

NOTE 5 *Amount receivable from sale of option rights:*

This amount arose from the sale of option rights in a prior year and is being paid to the Company in amounts equivalent to 90% of dividends received by the purchasers on the shares acquired. The deferred credit arising from the sale of the option rights is being taken into income as the cash is received from the purchasers.

NOTE 6 *Investments in associated companies:*

In prior years, investments in companies other than subsidiaries were accounted for on the cost basis, except for Placer Exploration Limited and Cortez Gold Mines, which were recorded at the underlying equity in net assets. Commencing January 1, 1972 the Company adopted the equity method of accounting for investments in companies in which it owns from 20% to 50%. Under this method the Company records as earnings its share of the earnings or losses of (rather than dividends received from) associated companies. This change has resulted in increased net earnings of \$1,572,000 and \$3,063,000 for 1972 and 1971 respectively. Additionally, the retained earnings at January 1, 1971, previously reported as \$63,640,000, have been increased retroactively by \$19,976,000.

Investment in these companies at December 31, 1972 comprises the following:

	% Ownership	Quoted Market Price	Underlying equity in net assets 1972      1971 (in thousands)	
Marcopper Mining Corporation	40	\$54,749	\$12,265	\$11,661
Mattagami Lake Mines Limited (N.P.L.)	27	66,455	13,501	11,646
Craigmont Mines Limited	45	17,546	4,900	5,929
Placer Exploration Limited	50	not quoted	4,356	5,381
Cortez Gold Mines	28	not quoted	744	1,731
Commonwealth-New Guinea Timbers Limited	50	not quoted	—	1,680
			<u>\$35,766</u>	<u>\$38,028</u>

As a result of the acquisition of an additional 15% interest, the accounts of Commonwealth-New Guinea Timbers Limited, previously recorded on the equity method, have been consolidated effective July 1, 1972.

The excess of \$3,277,000 (less amounts written off \$1,592,000) of the cost of the investments over the underlying equity in the net assets at the date of acquisition is included in the Investment in associated companies and is being written off over the estimated lives of the respective operations, or twenty years, whichever is less.

Summarized below are the combined assets, liabilities and net earnings of all the above-mentioned companies:

Combined Assets and Liabilities	December 31, 1972      1971 (in thousands)	
Assets:		
Current assets	\$ 79,845	\$ 61,259
Investments and other assets	15,243	15,004
Fixed assets—net	106,117	97,957
	<u>\$201,205</u>	<u>\$174,220</u>
Liabilities:		
Current liabilities	\$ 35,484	\$ 20,418
Long-term debt	43,905	30,928
	<u>\$ 79,389</u>	<u>\$ 51,346</u>
Combined net earnings for the year ended December 31	<u>\$ 36,087</u>	<u>\$ 25,333</u>

NOTE 7 *Plant, buildings and equipment:*

The total cost and accumulated depreciation of plant, buildings and equipment at December 31, 1972 are as follows:

	Cost (in thousands)	Accum. Depre- ciation (in thousands)
Buildings and machinery	\$ 95,330	\$28,138
Mobile equipment	19,480	7,115
Other	2,506	1,732
	<u>\$117,316</u>	<u>\$36,985</u>

Total depreciation expense of \$6,729,000 and \$3,627,000 for the 1972 and 1971 years respectively are included in the calculation of cost of sales in the statement of earnings.

NOTE 8 *Income taxes:*

Deferred withholding taxes on the equity in earnings of Marcopper Mining Corporation are included as deferred income taxes in the statement of earnings. In 1972, however, the majority of these earnings was distributed by Marcopper Mining Corporation as dividends resulting in a reduction in deferred income taxes and an increase in current income taxes.

Certain of the Company's subsidiaries have exploration expenses and other allowances of

approximately \$11,000,000 which have been written off against earnings in the current and prior years but are available to reduce taxable income in future years. For the year ending December 31, 1972 a portion of the prior years' expenses and allowances has been claimed for income tax purposes with the resulting tax benefit being recorded in the Company's statement of earnings as an extraordinary item.

Gibraltar Mines Ltd. (N.P.L.) is operating in its income tax-free period which expires on December 31, 1973, and therefore is subject to British Columbia Mining tax only.

For fiscal years commencing after December 31, 1976 the standard percentage depletion currently allowed under the Income Tax Act will terminate. Instead, corporations in the extractive industries will be allowed to claim a deduction ("earned depletion") from taxable income which will be based on \$1 for every \$3 of eligible capital and exploration expenditures made after November 7, 1969. At December 31, 1972 the "earned depletion" available to the Company and its subsidiaries after 1976 is approximately \$25,000,000.

NOTE 9 *Long-term debt:*

Under an agreement dated May 1, 1971 bank financing was arranged for Gibraltar Mines Ltd. (N.P.L.), and a total amount of \$63,918,000 was borrowed. The interest rate is 1¼% per annum above the minimum lending rate on Canadian dollar borrowings and 1% per annum above the Eurodollar rate on U.S. dollar borrowings. The financing is secured by first mortgage bonds on all of Gibraltar's property and equipment. In addition the Company has agreed that during the period of the loan it will not, without the consent of the banks, dispose of or encumber its shares of Marcopper Mining Corporation, Craigmont Mines Limited and Mattagami Lake Mines Limited (N.P.L.) and that it will not dispose of or encumber the assets of the Endako Mines Division. The payment of dividends by Gibraltar is not permitted for the duration of the loan unless consented to by the banks.

The loan agreement stipulates that 75% of Gibraltar's net cash flow shall be applied to the repayment of the loan, with minimum quarterly remittances of \$2,500,000. During 1972, a total of \$7,500,000 was repaid by Gibraltar through two quarterly installments and an additional payment in July of \$2,500,000.

At December 31, 1972 the long-term debt comprises the following:

	(in thousands)
Bank Loan .....	\$56,418
Other .....	944
	<u>57,362</u>
Portion due within one year .....	12,243
	<u>\$45,119</u>

NOTE 10 *Share option plan:*

Under the employee share option plan, the following transactions took place during the current year:

	Exchangeable Common Shares	Common Shares	Total
Options outstanding at December 31, 1971 ...	67,700	460	68,160
Options exercised .....	<u>3,400</u>	<u>460</u>	<u>3,860</u>
Options outstanding at December 31, 1972 ...	<u>64,300</u>	<u>—</u>	<u>64,300</u>

Options have a ten-year term and are exercisable as to 20% one year from the date of option and as to 20% in each of the four succeeding years at prices ranging from \$22.55 to \$37.82 per share. The option price is set at 110% of the market value of the share at the date the option is granted. At December 31, 1972 4,950 shares were reserved for the granting of future options, unchanged from December 31, 1971.

NOTE 11 *Pension plans:*

The Company and its subsidiaries have seven employee contributory pension plans at December 31, 1972. The plans are funded and Company contributions are determined by periodic actuarial computations. The unfunded past service costs as at December 31, 1972 amounted to \$166,000 which are being paid over a period of years as recommended by the actuaries. The cost of all pension plans for the year ended December 31, 1972 amounted to \$252,000.

NOTE 12 *Remuneration of directors and senior officers:*

Aggregate direct remuneration paid during the year ended December 31, 1972 by the Company and its subsidiaries to directors and senior officers of the Company amounted to \$472,000.

## Auditors' Report

TO THE SHAREHOLDERS,  
PLACER DEVELOPMENT LIMITED:

We have examined the consolidated balance sheet of Placer Development Limited and its subsidiaries as at December 31, 1972 and the consolidated statements of earnings, retained earnings, and changes in financial position for the year then ended.

Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion these consolidated financial statements present fairly the financial position of the companies as at December 31, 1972 and the results of their operations and the changes in their financial position for the year then ended, in accordance with generally accepted accounting principles applied, after giving retroactive effect to the change to the equity method of accounting for investments, with which we concur, as explained in Note 6 to the financial statements, on a basis consistent with that of the preceding year.

Vancouver, B.C.  
March 9, 1973.

PRICE WATERHOUSE & CO.  
Chartered Accountants

### 10-Year Summary of Operating Results\*

(in thousands)

	1972	1971	1970
Net operating income .....	\$ 23,429	\$ 9,192	\$ 16,084
Equity in earnings of associated companies .....	11,313	9,587	12,073
Interest and other income .....	2,829	2,474	3,084
	<u>37,571</u>	<u>21,253</u>	<u>31,241</u>
Depreciation .....	6,729	3,627	3,766
Amortization and depletion .....	1,473	796	209
Exploration .....	6,233	4,377	5,539
Income taxes .....	3,864	5,358	9,965
Minority interest .....	2,623	—	—
	<u>20,922</u>	<u>14,158</u>	<u>19,479</u>
Net Earnings .....	\$ 16,649	\$ 7,095	\$ 11,762
Per Share .....	\$ 2.78	\$ 1.19	\$ 1.97
Dividends paid .....	\$5,683,065	\$5,470,559	\$8,088,759
Per Share .....	\$ 0.95	\$ 0.91	\$ 1.35
Shares Outstanding (net) .....	5,983,815	5,979,955	5,979,955

\*Restated for comparative purposes.



1969	1968	1967	8 Months to December 31 1966	Year Ended April 30 1966	1965	1964
\$ 19,583	\$ 13,632	\$ 14,447	\$ 10,607	\$ 11,139	\$ 6,165	\$ 6,293
5,916	3,597	6,808	7,050	4,128	4,290	5,177
1,810	1,219	2,212	110	467	699	337
<u>27,309</u>	<u>18,448</u>	<u>23,467</u>	<u>17,767</u>	<u>15,734</u>	<u>11,154</u>	<u>11,807</u>
3,342	3,308	3,123	1,865	1,997	1,973	2,057
240	967	1,476	904	1,170	172	179
6,290	5,268	5,131	2,285	2,255	1,101	936
5,683	434	543	73	168	1,218	1,229
—	—	—	—	—	—	—
<u>15,555</u>	<u>9,977</u>	<u>10,273</u>	<u>5,127</u>	<u>5,590</u>	<u>4,464</u>	<u>4,401</u>
\$ <u>11,754</u>	\$ <u>8,471</u>	\$ <u>13,194</u>	\$ <u>12,640</u>	\$ <u>10,144</u>	\$ <u>6,690</u>	\$ <u>7,406</u>
\$ 1.98	\$ 1.43	\$ 2.22	\$ 2.14	\$ 1.76	\$ 1.28	\$ 1.42
\$7,030,390	\$4,264,670	\$4,250,138	\$3,151,483	\$2,849,845	\$3,008,138	\$2,606,350
\$ 1.18	\$ 0.72	\$ 0.72	\$ 0.53	\$ 0.49	\$ 0.58	\$ 0.50
5,938,371	5,934,571	5,933,771	5,904,871	5,761,378	5,217,437	5,229,019

# Placer Development Limited

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## DIRECTORS

James C. Dudley, New York, U.S.A.,  
*Private Financial Consultant*

Albert E. Gazzard, Vancouver, Canada,  
*Company Director*

J. Douglas Little, Vancouver, Canada,  
*Executive Vice-President*

\*Thomas H. McClelland, Vancouver, Canada,  
*President and Chief Executive Officer*

\*Alfred Powis, Toronto, Canada,  
*President and Chief Executive Officer,  
Noranda Mines Limited*

J. Ernest Richardson, Vancouver, Canada,  
*Chairman, President and Chief Executive Officer,  
B.C. Telephone Company*

William S. Row, Toronto, Canada,  
*Executive Vice-President,  
Noranda Mines Limited*

P. Ritchie Sandwell, Vancouver, Canada,  
*Chairman of the Board and Chief Executive  
Officer, Sandwell & Company Limited*

\*John D. Simpson, Vancouver, Canada,  
*Chairman of the Board*

Vernon F. Taylor, Jr., Denver, U.S.A.,  
*President, Westhoma Oil Company*

\*H. Richard Whittall, Vancouver, Canada,  
*Partner, Richardson Securities of Canada*

*\*Member of the Executive Committee*

## OFFICERS

John D. Simpson,  
*Chairman of the Board*

Thomas H. McClelland,  
*President and Chief Executive Officer*

J. Douglas Little,  
*Executive Vice-President*

Ross G. Duthie,  
*Vice-President, Project Developments*

E. Jack Eldridge,  
*Vice-President, Australasian Operations*

James L. McPherson,  
*Vice-President, Finance and Administration*

Charles L. Pillar,  
*Vice-President, Operations*

Edgar A. Scholz,  
*Vice-President, Exploration*

John M. McConville,  
*Secretary*

Robert A. Watts,  
*Treasurer*

John Racich,  
*Comptroller*

David Michaelis,  
*Sydney Secretary*





## **Placer Group Interests**

### **Canada**

#### BRITISH COLUMBIA

Canex Placer Limited  
Canex Tungsten Division  
Endako Mines Division  
Craigmont Mines Limited  
Gibraltar Mines Ltd. (N.P.L.)

#### QUEBEC

Mattagami Lake Mines Limited (N.P.L.)

### **U.S.A.**

American Exploration & Mining Co.  
Cortez Gold Mines

### **Australia**

Placer Exploration Limited  
Fox Manufacturing Company  
Molybond Laboratories  
Plywood Manufacturing  
Northern Cattle Co. Pty. Ltd.

### **New Guinea**

Commonwealth-New Guinea Timbers Limited  
South Pacific Timbers  
Leron Plains  
Bulolo Timbers Division  
Territory Fisheries Pty. Limited

### **Philippines**

Marcopper Mining Corporation

### **Portugal**

Minas de Terramonte Lda.

### **Mexico**

Placer Mexicana S.A. de C.V.

### **Argentina**

Desarrollo Minero Argentino S.R.L.

OFFICES:

*Head Office:*

700 Burrard Building, Vancouver, Canada

*Sydney Office:*

Gold Fields House, Sydney Cove, Australia

AUDITORS:

Price Waterhouse & Co., *Chartered Accountants*

STOCK EXCHANGE LISTINGS:

Toronto Stock Exchange  
Vancouver Stock Exchange  
Montreal Stock Exchange  
Sydney Stock Exchange  
American Stock Exchange

BANKERS:

Canadian Imperial Bank of Commerce  
The Bank of Nova Scotia  
Bank of New South Wales  
Brown Brothers Harriman & Co.  
Bank of America  
First National City Bank  
Bankers Trust Company  
The Chase Manhattan Bank

TRANSFER AGENTS AND REGISTRARS:

National Trust Company, Limited,  
Vancouver and Calgary, Canada  
Canada Permanent Trust Company,  
Toronto and Montreal, Canada  
Central Share Registry of Australia Pty. Limited,  
Sydney, Australia  
Registrar and Transfer Company,  
Jersey City, N.J., U.S.A.



