BARRINGER RESEARCH

ANNUAL REPORT 1973

Officers:

Dr. Anthony R. Barringer, President

Dr. D. Richard Clews, Executive Vice President

Brandon W. Sweitzer, Vice President

David A. Whiteman, Vice President

Robert J. Armstrong, Secretary

William S. Beckett, Controller

Directors:

Robert J. Armstrong

Dr. Anthony R. Barringer

Daniel R. Bereskin

Dr. D. Richard Clews

Sholly Kagan

Dennis J. C. Macourt

Roger C. Wilson

Transfer Agents:

Chemical Bank, 277 Park Avenue, New York, New York 10017

Auditors:

Coopers & Lybrand,

Chartered Accountants, 145 King Street, West, Toronto, Ontario, Canada

Corporate Counsels:

Blackwell, Law, Treadgold & Armstrong,

Suite 1501, 110 Yonge Street, Toronto 1, Ontario, Canada

Satterlee & Stephens,

277 Park Avenue,

New York, New York 10017

Corporate Offices:

Barringer Research,

304 Carlingview Drive, Metropolitan Toronto, REXDALE, Ontario,

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Anglo American, Barringer agree to joint venture

Anglo American Corp. of Canada (Amcan) and Barringer Research have agreed in principle to form a joint company to "maximize the resource exploration applications of Barringer's airborne biogeochemical exploration system, called Airtrace". Anglo American's interest will be shared equally with Hudson Bay Mining & Smelting Co.

Terms provide for an airborne survey company in which Amcan and Barringer will have equal equity and board representation. An Amcan nominee will chair and cast a deciding vote in the survey

The new company will have an exclusive worldwide licence to use the Barringer Airtrace system to explore for minerals and metals, including coal and oil shales. Amcan will fund the survey company which in turn will pay a licence fee for the Barringer Airtrace system and will finance acquisition and outfitting of aircraft with the Airtrace exploration systems. The survey company will start up operations as early as practicable in 1974 and offer its services for a fee. The present idea too is that the survey company would take a participation in any discovery.

The survey company will pay Barringer a royalty for use of the Airtrace system and will pay Amcan a management fee.

Barringer and Amcan also will incorporate a hydrocarbons ex-

LIBRARY

ploration company in which Barringer will hold 70%, Amcan 15% and Hudson Bay 15% equity interest. Subject to terms of existing agreements, Barringer will grant this company exclusive rights to use Airtrace to explore for oil, gas and geothermal energy sources. To the extent possible the mineral survey company will provide aircraft and operate for the hydrocarbon exploration com-

Airtrace is seen as an important breakthrough in the field of mineral exploration, H. R. Fraser,

Amcan chairman, said.

The system is capable of performing airborne exploration surveys using patented techniques for detecting, recording and measuring metallo-organic and organic compounds present in the atmosphere. It makes use of the phenomenon of smell, providing a new means, according to A. R. Barringer, president, Barringer Research, of exploring for por-phyry coppers, lead-zinc, and precious metal deposits previously not amenable to airborne exploration methods. In conjunction with airborne magnetic and electromagnetic surveys it also adds a new dimension to accepted geophysical techniques and for the first time gives direct airborne detection and identification of copper, nickel, lead, zinc, silver, and mercury. It operates on a biological fraction in the atmosphere and is indirectly related to

sub-surface vapor emanations from ore deposits as well as trace dispersions of metals in ground waters — all vegetation exceeds organic material that contains traces of the material on which it is feeding. The system apparently has special application to overburden areas, and will operate in both semi-arid and heavily vegetated areas.

At a press conference announcing the Anglo-Barringer agreement, Dr. Barringer noted that tests had been carried out successfully in Australia, the U.S.A. and South Africa, and also over the Sturgeon Lake area of Northern Ontario last November, with 6-12 in. of snow cover on the ground doing little to detract from the interesting and encouraging results received.

The system has been under development for three years, and has had well over \$1.5 million poured into it, Dr. Barringer said. Two systems are in use currently, one in Texas and one based in Sydney, Australia, with more under construction for future use.

Its ability to provide direct metal detection from the air is seen as something which will help considerably in cutting down on drilling costs, a factor that has caught Hudson Bay's attention.

"Hudson Bay Mining is especially interested in Airtrace," H. A. Mackenzie, its newly elected president, said, "since the company has developed and used its own geophysical techniques, and also has drilled thousands of anomalies."

Dr. Barringer will be describing Airtrace at the AIME Dallas meeting in February and also in April at the International Geochemical Symposium in Vancou-



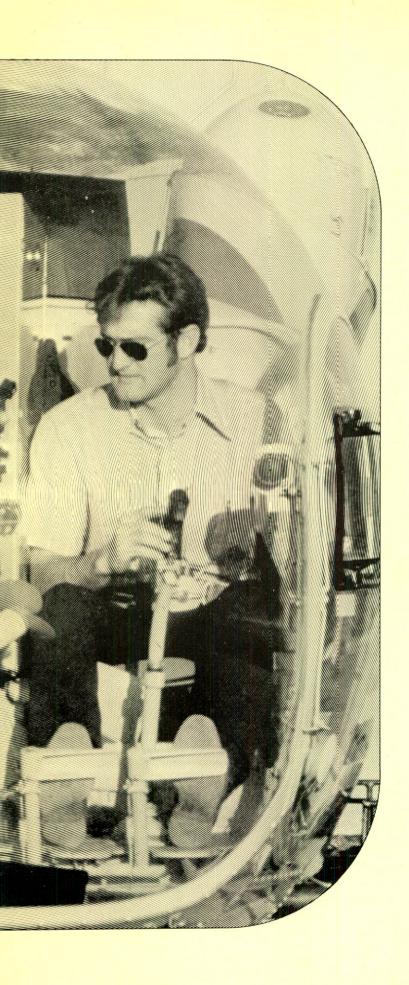
AIRTRACE installation in Britten-Norman Islander aircraft in Australia, air scoops under wings.

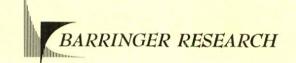
+The Northern Miner JANUARY 3, 1974 REPRINTED FROM McGILL UNIVERSIT

TORONTO, CANADA





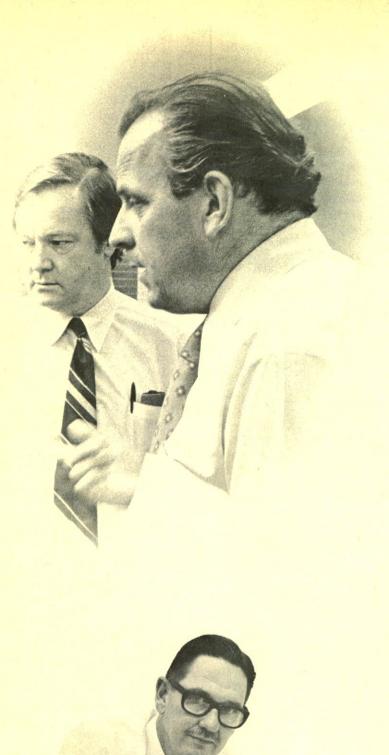




Dear Shareholder:

Barringer Research has an ambitious objective. It is not an easy one to attain. The Company's aim has been—and remains—to obtain equity participation in discoveries of natural resources in the fields of minerals, oil and gas. The objective will be realized by developing and patenting remote sensing exploration systems and combining them with a unique blend of scientific and technical expertise.

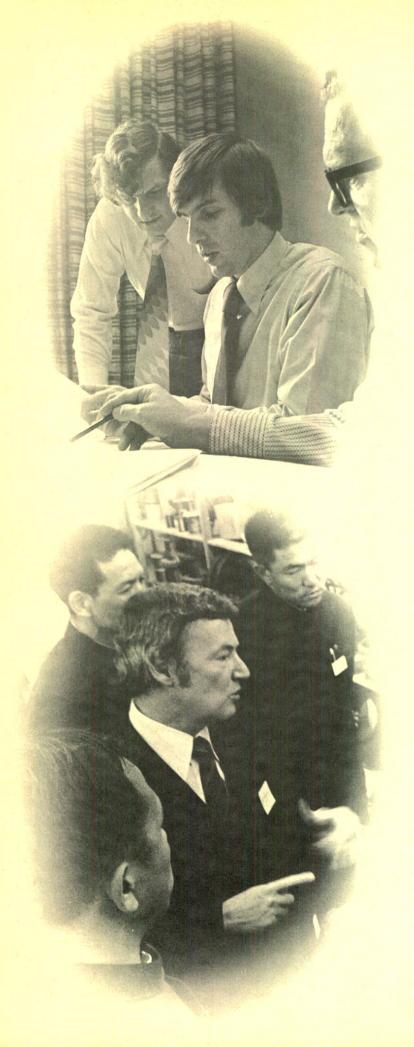
Already the Company has obtained a 4.5 percent equity in an interesting porphyry copper situation in the Fiji Islands and exploratory drilling is continuing, financed by AMAX, Australian Anglo American Corporation and Barringer. On the Canadian scene, as a result of a joint venture with TRW, the Company owns some 150 thousand shares in a promising gold prospect (representing nearly 10 percent of its issued capital). Current negotiations with various companies on other prospects have resulted in equity interests plus cash down payments.





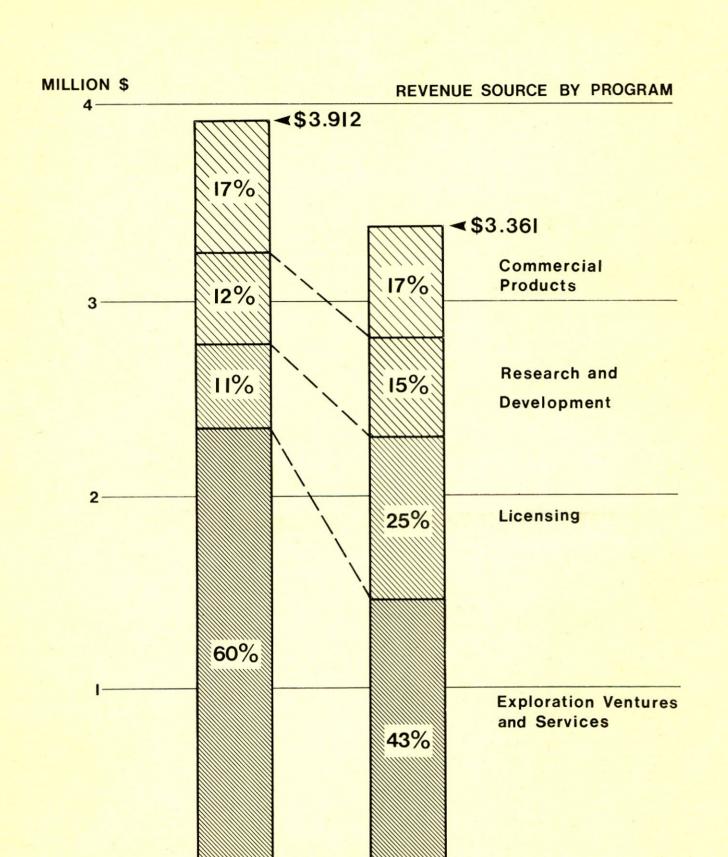
To provide liquidity in the short and medium term the Company continues to derive income from its past and present pioneering developments in exploration technology as well as instrument sales:

- the patented INPUT system remains as the workhorse of the airborne exploration field, flying in 1973 approximately half of the world's commercially flown and reported electromagnetic surveys and returning nearly \$370 thousand in royalty and rental income.
- the patented E-PHASE system was commercially applied in airborne resistivity mapping and a major commercial-grade gravel deposit was discovered under a contract to the Saskatchewan Government. The system generated some \$143 thousand in revenues and the increase in survey mileages is expected to continue in 1974.
- the patented AIRTRACE system will return in excess of \$1 million in license fees alone in 1974 and 1975, and royalties for survey mileages are expected to be substantial.
- the instrument manufacture arm of the Company returned well over \$500 thousand in revenues and was restructured to enable Barringer to take a more aggresive market-place stance.

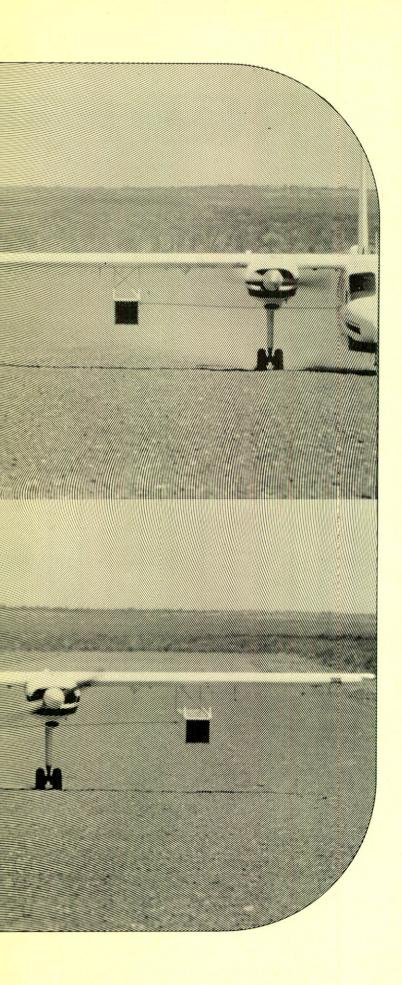


Like all ambitious undertakings, Barringer's is subject to difficulties. Progress is often time-consuming and costly. It frequently places demands and responsibilities on management, professionals and support staff that are not easily nor lightly carried. Barringer's performance in its 14th year of operations—its 6th year as a public company—demonstrates the balance of high risk and equally high reward.

It was particularly gratifying to receive the IR-100 award again in 1973—the Company's third in the past four years. This award is granted annually by a panel of distinguished scientists in recognition of the year's 100 most significant technological innovations. But in 1973 the Company moved toward its goal of scientific and technical excellence in mineral and—for the first time—hydrocarbon exploration systems through all four of its corporate programs.



1972 _____ 1973



Exploration Ventures/Services

Until the end of two major integrated exploration programs in 1972, the major source of the Company's revenues had been these activities. During the past year Barringer's professional staff of geologists, geochemists, geophysicists and analytical chemists played a vital role in the Company's AIRTRACE program—both in the laboratory and the field.

The Company plans to redeploy these professionals to new major exploration activities as soon as research in potential programs is complete and funding partners are obtained. Still, Barringer's interests in its two program areas of Fiji and the Canadian pre-Cambrian Shield continued actively:

- in Fiji, the Company acquired its interest in the exploration program being undertaken by Australian Anglo American and American Metal Climax, Inc. As announced in a press release dated March 23, 1973, the initial drill results are considered encouraging and further drilling is in progress. Substantial additional drilling will be necessary to prove the existence of a commercial copper deposit and in order to maintain its interest Barringer will be required to make pro rata expenditures on the program.
- in Canada, where Barringer has significant equity interest in several drill targets through its participation in Magenta Explorations Limited, additional funding and operating partners were secured to advance work to the diamond drilling stage.

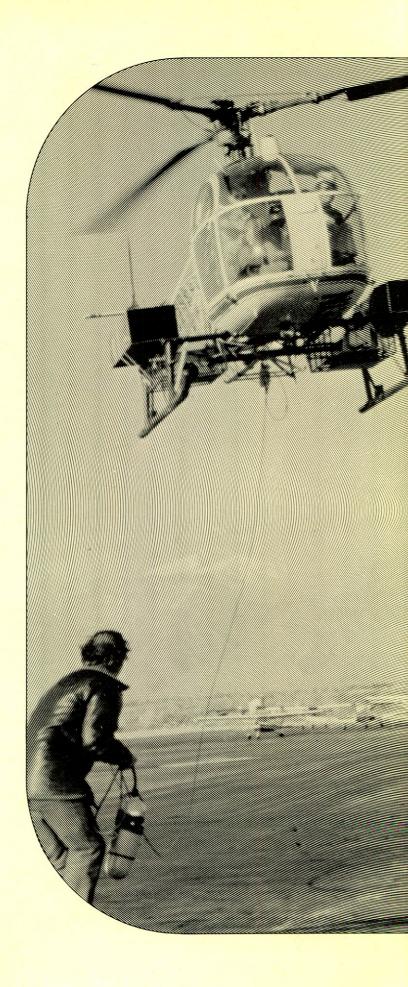
The Company's airborne operations staff performed substantial work in AIRTRACE operations for test programs funded by clients as well as support of in-house R & D on the program. This airborne work was at a level unprecedented in the Company's history; and greatly enhanced Barringer's flight operations and data-handling competence.

Licensing

The strength of Barringer's patent position is evidenced by the more than \$800 thousand of license fees, royalties and rentals received in the past year. This is a continuous earnings stream for the Company and is a tangible result of the excellence of its systems.

More importantly, as the financial statement in this annual report records in detail, Barringer's patent position enabled it in 1973 to:

- reach agreement in principle (and complete in early 1974) with Anglo American Corporation of Canada Limited (Amcan) to form a joint company in Canada, in which both partners will participate equally, to commercially exploit the AIRTRACE system by funding continued R & D work at a significant level and building operation capabilities. Amcan is the North American arm of one of the world's largest mining houses.
- form with organizations of the Consolidated Gold Fields group a joint company and a joint venture to utilize AIRTRACE in the limited areas of Southern Africa and the North Sea waters of the United Kingdom.



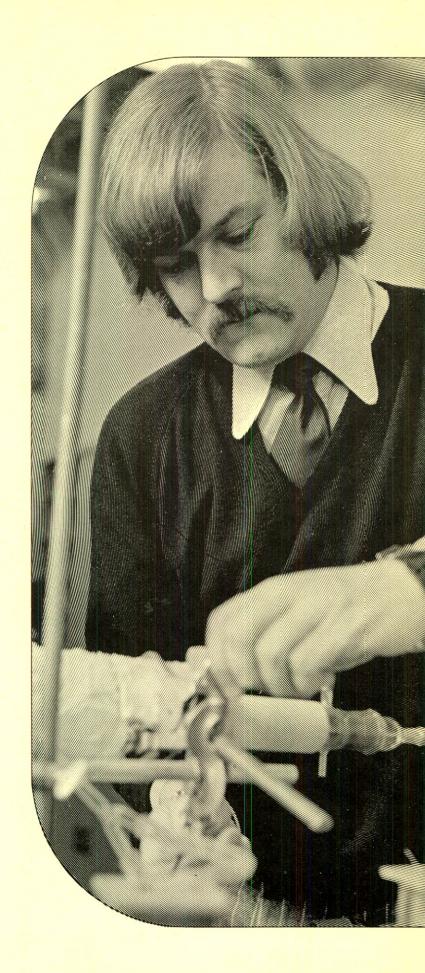
1973

Research and Development

Substantial in-house R & D was carried out to further Barringer's progress with the new patented AIRTRACE airborne geochemical exploration system. The successful results of this work have been noted earlier in this letter. In 1973 the Company has written off the costs of this R & D as incurred, and the bulk of this year's consolidated losses are due to absorbtion of the costs of this work—which are of a continuing nature. As indicated in Note 13 to the consolidated financial statements, this R & D is to be funded in the future by a joint venture partner.

Research and development on a fully funded basis was done under contract to a major international petroleum company on a gas filter cell correlation spectrometer for ethane-methane detection—resulting in the IR-100 award mentioned previously.

Further development and field testing of the Company's helicopter-borne electromagnetic mineral exploration system also proceeded under funds provided by the National Research Council of Canada and a subsidiary of a major Canadian mining company. Three such systems are now in use; two commercially in Canada and one with the foreign assistance arm of the German Federal Republic in Brazil.



1973



Commercial Products

In the Fall of 1973 the Company introduced a new portable ground exploration instrument—the GM-122 mini-proton magnetometer. Initial sales of the GM-122 were encouraging, despite the fact that this is a highly competitive, specialized market-place. More importantly, GM-122 technology is being incorporated in Barringer's new Type 105 magnetometer—a higher profit instrument that will be made available to the market in 1974 in airborne, oceanographic and ground station versions.

Sales of the Company's COSPEC series of ambient air, remote sensing, pollution monitor increased over 1972 levels. This unique patented instrument gives Barringer a capability in environmental monitoring that the Company intends to market more aggressively in the future in conjunction with other emerging, inhouse developed, technologies.

The Company also looks to a continued source of revenues and profits from its nuclear process control instrument, which is a standard component of the Canadian CANDU-type nuclear reactor that is one of the world's most efficient and commercially viable.

The inherent strength of the Company's technological position—and the persistence and competence of its professional staff—are characteristics that we firmly believe will enable Barringer Research to grow and prosper greatly in coming years.

arB-

Sincerely,

A.R. Barringer April 2, 1974

Barringer Research Inc. and Consolidated Subsidiaries

Consolidated Balance Sheet as at December 31, 1973 (with 1972 figures for comparison)

Assets

Current Assets	1973 \$	1972 \$
Cash	42,453	150,768
Accounts receivable—trade (less allowance for	42,433	150,700
doubtful accounts, 1973—\$33,296; 1972—\$56,168)	729,695	739,460
Inventories (note 2)	716,084	612,698
Deposits, advances and prepaid expenses	46,620	44,671
	1,534,852	1,547,597
Investments and Advances		
Subsidiaries not consolidated (note 1)	9,938	12,901
Marketable securities—at cost (market value 1973—		
\$23,869; 1972—\$35,132)	18,989	33,505
Mining exploration ventures (note 3)	774,440	723,690
	803,367	770,096
Fixed Assets (note 4)	676,738	1,069,980
Tixed Assets (hyter)		1,005,500
Other Assets—at cost, less amortization (note 1 (d))		
Patents and trademarks	149,804	86,320
Tateris and trademarks		
	2 164 761	2 473 003
	3,164,761	3,473,993

Liabilities

	1973 \$	1972 \$
Current Liabilities		
Bank indebtedness (note 5)	894,282	412,666
Current portion of long-term debt	60,000	60,000
Accounts payable and accrued charges	629,259	918,611
Income taxes	18,000	90,000
	1,601,541	1,481,277
Deferred Income (note 3)	464,190	426,690
Long-Term Debt (note 6)—Convertible subordinated		
promissory notes, less amount included in current liabilities	245,000	305,000
	2,310,731	2,212,967
Shareholders' Equity		
Capital Stock (notes 7 and 8)		
Authorized— 2,000,000 shares of common stock of 1¢ par value each		
Issued and fully paid— 867,400 shares (1972—855,000)	9.674	0.550
Paid-In Surplus (note 7)	8,674	8,550
Deficit	1,874,288	1,821,612
Delice.	(1,022,385)	(562,589)
Law areas and in Toronto and the second	860,577	1,267,573
Less common stock in Treasury—at cost, 90,400 shares	6,547	6,547
	854,030	1,261,026
	3,164,761	3,473,993

Barringer Research Inc. and Subsidiaries Consolidated Statement of Loss and Deficit For the Year Ended December 31, 1973

	1973	1972
	\$	\$
Sales	2,828,133	3,435,360
Revenue from Research Contracts	532,934	476,567
	3,361,067	3,911,927
Cost of Sales	2,027,317	2,704,376
Cost of Research Contracts	403,281	370,217
	2,430,598	3,074,593
Gross Profit	930,469	837,334
Selling, General and Administrative Expenses	849,178	682,055
Research and Development Expenditures (note 1 (d))	489,643	875,966
	1,338,821	1,558,021
Loss from Operations	408,352	720,687
Other Income and (Expenses)		
Loss on investments (including inactive subsidiary companies)	(19,246)	(32,417)
Interest expense—	(20.550)	(25,005)
Long-term debt	(30,552)	(26,905)
Other	(48,900)	(46,636)
Gain on disposal of fixed assets	10,254	
	(88,444)	(105,958)
Loss Before Income Taxes and Extraordinary Items	496,796	826,645
Income Taxes Recovered (note 9)	11,000	
Loss Before Extraordinary Items	485,796	826,645
Extraordinary Items		
Renefit of tax loss carry forward		90,000 212,934
Gain on sale of investment in non-associated company (note 9)	26,000	
	26,000	302,934
Loss for the Year	459,796	523,711
Deficit—Beginning of Year	562,589	38,878
Deficit—End of Year	1,022,385	562,589
Loss Per Share (note 12)	\$0.62	\$1.08
Loss before extraordinary items	\$(0.03)	\$(0.40)
	\$0.59	\$0.68
Loss for the year	====	====

Barringer Research Inc. and Subsidiaries Consolidated Statement of Changes in Financial Position for the Year ended December 31, 1973

Funds Provided Deferred income 37,500 426,690 Sale of investments, less income taxes 26,000 922,934 Issue of shares of common stock 52,800 — Disposals of fixed assets—net 219,154 (883,723) 335,454 465,901 Funds Applied From operations— *** Loss for the year before extraordinary items 485,796 826,645 Items not involving funds— *** *** Depreciation and amortization (181,354) (1,003,871) Loss on investments (19,246) — Purchase of warrants — 105,000 Investments and advances 52,517 717,002 Research and development expenditures — 66,077 Reduction in long-term debt 60,000 60,000 Additions to patents and trademarks 70,750 7,699 Decrease in Working Capital 133,009 218,151 Represented by: Decrease (increase) in cash — 125,000 <		1973	1972 \$
Deferred income 37,500 426,690 Sale of investments, less income taxes 26,000 922,934 Issue of shares of common stock 52,800 — Disposals of fixed assets—net 219,154 (883,723) 335,454 465,901 Funds Applied From operations— *** Loss for the year before extraordinary items 485,796 826,645 Items not involving funds— (181,354) (1,003,871) Depreciation and amortization (181,354) (1,003,871) Loss on investments (19,246) — Purchase of warrants — 10,500 Investments and advances 52,517 717,002 Research and development expenditures — 66,077 Reduction in long-term debt 60,000 60,000 Additions to patents and trademarks 70,750 7,699 Adea,463 684,052 684,052 Decrease in Working Capital 133,009 218,151 Represented by: — 125,000 Decrease (increase) in cash<	Funds Provided	Ψ	
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Disposals of fixed assets—net 219,154 (883,723) 335,454 465,901 Funds Applied From operations—			_
Funds Applied From operations— Loss for the year before extraordinary items 485,796 826,645 Items not involving funds— 1 (181,354) (1,003,871) Loss on investments (19,246) — Purchase of warrants (19,246) — Purchase of warrants 52,517 717,002 Research and development expenditures — 66,077 Reduction in long-term debt 60,000 60,000 Additions to patents and trademarks 70,750 7,699 Decrease in Working Capital 133,009 218,151 Represented by: — 125,000 Decrease (increase) in cash 108,315 (121,315) Decrease in short-term deposit — 125,000 Decrease (increase) in receivables 9,765 1,74,292 (Increase) in other current assets (105,335) (179,422) Increase in bank indebtedness 481,616 315,326 (Decrease) increase in other current liabilities 252,854			(883,723)
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From operations— 485,796 826,645 Loss for the year before extraordinary items 485,796 826,645 Items not involving funds—	Funds Applied		
Loss for the year before extraordinary items 485,796 826,645 Items not involving funds—Depreciation and amortization (181,354) (1,003,871) Loss on investments (19,246) — 285,196 (177,226) Purchase of warrants — 10,500 Investments and advances 52,517 717,002 Research and development expenditures — 66,077 Reduction in long-term debt 60,000 60,000 Additions to patents and trademarks 70,750 7,699 468,463 684,052 Decrease in Working Capital 133,009 218,151 Represented by: — 108,315 (121,315) Decrease (increase) in cash — 125,000 Decrease (increase) in receivables 9,765 (174,292) (Increase) in other current assets (105,335) (179,422) Increase in bank indebtedness 481,616 315,326 (Decrease) increase in other current liabilities (361,352) 252,854			
Items not involving funds— Depreciation and amortization (181,354) (1,003,871) Loss on investments (19,246) — 285,196 (177,226) Purchase of warrants — 10,500 Investments and advances 52,517 717,002 Research and development expenditures — 66,077 Reduction in long-term debt 60,000 60,000 Additions to patents and trademarks 70,750 7,699 Additions to patents and trademarks 70,750 7,699 Decrease in Working Capital 133,009 218,151 Represented by: Decrease (increase) in cash 108,315 (121,315) Decrease (increase) in receivables 9,765 (174,292) (Increase) in other current assets (105,335) (179,422) Increase in bank indebtedness 481,616 315,326 (Decrease) in receivable in other current liabilities (361,352) 252,854		485,796	826,645
Loss on investments (19,246) — Purchase of warrants — 10,500 Investments and advances 52,517 717,002 Research and development expenditures — 66,077 Reduction in long-term debt 60,000 60,000 Additions to patents and trademarks 70,750 7,699 Decrease in Working Capital 133,009 218,151 Represented by: — 125,000 Decrease (increase) in cash — 125,000 Decrease (increase) in receivables 9,765 (174,292) (Increase) in other current assets (105,335) (179,422) Increase in bank indebtedness 481,616 315,326 (Decrease) increase in other current liabilities (361,352) 252,854	Items not involving funds—		
Purchase of warrants (177,226) Investments and advances 52,517 717,002 Research and development expenditures — 66,077 Reduction in long-term debt 60,000 60,000 Additions to patents and trademarks 70,750 7,699 468,463 684,052 Decrease in Working Capital 133,009 218,151 Represented by: — 125,000 Decrease (increase) in cash — 125,000 Decrease (increase) in receivables 9,765 (174,292) (Increase) in other current assets (105,335) (179,422) Increase in bank indebtedness 481,616 315,326 (Decrease) increase in other current liabilities (361,352) 252,854			(1,003,871)
Purchase of warrants — 10,500 Investments and advances 52,517 717,002 Research and development expenditures — 66,077 Reduction in long-term debt 60,000 60,000 Additions to patents and trademarks 70,750 7,699 468,463 684,052 Decrease in Working Capital 133,009 218,151 Represented by: — 125,000 Decrease (increase) in cash — 125,000 Decrease (increase) in receivables 9,765 (174,292) (Increase) in other current assets (105,335) (179,422) Increase in bank indebtedness 481,616 315,326 (Decrease) increase in other current liabilities (361,352) 252,854	Loss on investments		
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Decrease in Working Capital 133,009 218,151 Represented by: Decrease (increase) in cash 108,315 (121,315) Decrease in short-term deposit - 125,000 Decrease (increase) in receivables 9,765 (174,292) (Increase) in other current assets (105,335) (179,422) Increase in bank indebtedness 481,616 315,326 (Decrease) increase in other current liabilities (361,352) 252,854	Additions to patents and trademarks		
Represented by: Decrease (increase) in cash	Daniel I Waling Could		
Decrease (increase) in cash 108,315 (121,315) Decrease in short-term deposit — 125,000 Decrease (increase) in receivables 9,765 (174,292) (Increase) in other current assets (105,335) (179,422) Increase in bank indebtedness 481,616 315,326 (Decrease) increase in other current liabilities (361,352) 252,854	Decrease in Working Capital	133,009	218,151
Decrease in short-term deposit — 125,000 Decrease (increase) in receivables 9,765 (174,292) (Increase) in other current assets (105,335) (179,422) Increase in bank indebtedness 481,616 315,326 (Decrease) increase in other current liabilities (361,352) 252,854	Represented by:		
Decrease (increase) in receivables 9,765 (174,292) (Increase) in other current assets (105,335) (179,422) Increase in bank indebtedness 481,616 315,326 (Decrease) increase in other current liabilities (361,352) 252,854	Decrease (increase) in cash	108,315	(121,315)
(Increase) in other current assets (105,335) (179,422) Increase in bank indebtedness 481,616 315,326 (Decrease) increase in other current liabilities (361,352) 252,854	Decrease in short-term deposit	_	125,000
Increase in bank indebtedness	Decrease (increase) in receivables	9,765	(174,292)
(Decrease) increase in other current liabilities	(Increase) in other current assets	(105,335)	(179,422)
	Increase in bank indebtedness	481,616	315,326
Decrease in Working Capital		(361,352)	252,854
	Decrease in Working Capital	133,009	218,151

Barringer Research Inc. and Subsidiaries Notes to Consolidated Financial Statements for the Year Ended December 31, 1973

1. Summary of Significant Accounting Policies

(a) Principles of consolidation—

The accompanying consolidated financial statements comprise the accounts of the company and its wholly-owned subsidiary companies:

Barringer Research Limited—a Canadian company ("Limited"),

Barringer Geosurveys Pty. Limited and its subsidiary companies.

Investments in and advances to certain inactive subsidiaries have been written off during the year and two inactive subsidiaries of Limited have not been consolidated.

(b) Principles of translation-

The accounts of foreign subsidiaries have been translated into United States dollars on the following basis:

- (i) Income and expenses (other than depreciation and amortization)—at the average rate for the year.
- (ii) Depreciation and amortization—at historic rates applicable to the related asset account.
- (iii) Current assets and current liabilities at year end rates.
- (iv) Other balance sheet accounts—at historic rates.

The gain on translation of \$22,818 has been included in accounts payable.

(c) Depreciation Policy—See note 4.

(d) Amortization of Intangibles-

Patents and trademarks are amortized over their related lives which range from five to seventeen years. Amortization amounted to \$7,266 in 1973 (1972—\$3,654).

Company-sponsored research was virtually discontinued in 1970, and in 1972 after a review of the projects, the remaining research expenditures were written-off as being of marginal future benefit.

In 1973, the company's research and development was in large part directed towards certain equipment which has been licensed to a third party (see note 13). This research and development is expected to be of a continuing nature and the costs thereof, including applicable overhead, less Government grants and outside support, is being written-off as incurred.

2. Inventories

The major categories of inventories are as follows:

	1973 \$	1972
Finished goods	462,476	68.827
Work in progress	134,803	132,353
Materials and supplies	9,571	8,514
Contracts in progress	109,234	403,004
	716,084	612,698

Inventories other than contracts in progress are stated at the lower of average cost and net realizable value for finished goods and work in progress, and at the lower of average cost and replacement cost for materials and supplies. The percentage-of-completion method of accruing profit on fixed price contracts in progress is used, with anticipated losses being provided for in full. Profits on cost plus contracts are recorded as earned.

3. Mining Exploration Ventures

In 1972, a subsidiary acquired shares in certain mining exploration companies in return for providing exploration services at cost. These shares have been recorded at an amount equal to the normal profit margin on such exploration services, with a corresponding

credit to deferred income pending the realization of the

These ventures are summarized as follows:

(a)	Shares recorded at cost and normal profit	\$
(4)	margin	426,740
	Barringer Fiji Limited—40 shares (a 20% interest)—no quoted value	
	Magenta Explorations Limited—1,000,000 shares (a 22% interest)—no quoted value	
	Royex Mining Limited — 107,914 unregistered shares—quoted value of registered shares at December 31, 1973, 25¢ per share	
(b)	The company's investment in Barringer Geosurveys Limited (a 49% interest) is	•
	recorded on the equity basis	700

(c) Advances

Magenta Explorations Limited (convertible into 230,000 shares)	\$ 297,000
Barringer Namosi Project	\$ 50,000

Exploration of the mining properties of these companies is continuing, and management believes the results of these exploration programs warrants further participation. In order to maintain the company's equity percentage in certain of these ventures, the company is required under certain circumstances to make further advances or investment.

4. Fixed Assets

The major categories of fixed assets are as follows:

	Cost	lated deprecia- tion and amortiza- tion	1973 \$	1972 \$
Office furniture				*
and equipment	117,916	63,562	54,354	60,962
Plant and				
machinery	340,155	217,690	122,465	71,260
Exploration	The second second second		100000000	2,000,000,000
equipment	537,448	272,984	264,464	295,540
Equipment on	226 077	120 747	107.130	500.000
lease Leasehold	326,877	139,747	187,130	588,960
improvements	71,008	22,683	48,325	53,258
improvements				
	1,393,404	716,666	676,738	1,069,980

Depreciation is provided on the straight-line basis over the estimated useful lives of the assets, principally four to ten years. Leasehold improvements are being amortized over the terms of the company's leases principally seven to twenty years. Depreciation and amortization for the year amounted to \$174,088 (1972— \$124,251).

5. Bank Indebtedness

The bank indebtedness is secured by a general assignment of accounts receivable and by a floating charge debenture covering most of the consolidated assets.

6. Long-Term Debt

The convertible subordinated promissory notes mature serially in semi-annual instalments of \$30,000 to December 31, 1978, with the final payment on that date being \$35,000. Interest is payable at fluctuating rates, the rate as at December 31, 1973 being 11% per annum. These notes are convertible on the basis (subject to adjustment under certain conditions) of \$20 principal amount of notes for one share of common stock.

7. Capital Stock and Paid In Surplus

	Common Stock		Paid in	Surplus
Balance—beginning	1973 \$	1972 \$	1973	1972 \$
of year Plus 10,000 shares issued to an officer of a sub- sidiary company for a patent	8,550	8,550	1,821,612	1,832,112
valued at \$48,000 2,400 shares issued on exercise of stock option for consideration of \$4,800	100		47,900	
(note 8 (a)) Less: Cost of war-	24	_	4,776	_
rants acquired Balance—end of year	<u>8,674</u>	8,550		10,500 1,821,612

The excess of the consideration received on issue of the common shares over the par value thereof has been credited to paid in surplus.

Shares of common stock reserved for issuance were as

1	O	Ш	O	W	S	

	1973	1972
For stock options—		
Options outstanding	149,500	113,150
Available for granting future		
options	26,500	11,850
For warrants	11,000	11,000
For conversion of promissory		
notes	15,250	18,250
	202,250	154,250

8. Stock Options and Warrants

(a) 1968 and 1970 Qualified Stock Option Plans—

The company has two qualified stock option plans each covering 30,000 shares of common stock of the company.

Options may be granted to directors and key employees of the company or its subsidiaries at a price not less than the market value of the common stock at the time of the grant of the option. Each option is exercisable two years from the date of the grant, providing the optionee continues as a director or remains in the employ of the company or a subsidiary, and expires five years from the date of the grant. Information with respect to these stock option plans is summarized as follows:

Shares

	Strates	\$
Options outstanding December 31, 1972 (\$2.00 to \$8.00		
per share)	48,150	183,062
Option exercised Options cancelled	(2,400) (10,350)	(4,800) (54,212)
Options outstanding December 31, 1973 (\$2.00 to \$8.00		-
per share)	35,400	124,050

(b) Unqualified Stock Option Plan-

In 1972 the company adopted an unqualified stock option plan and options covering 95,000 shares were granted to fourteen key employees at \$5.00 per share. These options are exercisable as follows:

After December 31, 1973—89,100 shares After December 31, 1974—5,900 shares

and expire either three or four years thereafter. The company has first right of refusal to reacquire shares purchased under this option plan at a formula price equivalent to 75% of quoted value of the shares.

As at December 31, 1973, these options have not been exercised and are outstanding.

c) Options under Employment Agreements—

Under two employment agreements dated October 1, 1972, the company granted options, not under the option plans, to purchase an aggregate of 10,000 shares of common stock of the company at a price of \$5.00 per share during the period from October

1, 1972 to September 30, 1977. As at December 31, 1973, these options have not been exercised and are outstanding.

(d) In 1973 the company granted, to an officer of the company, an option to purchase 11,000 shares at a purchase price of \$2.50 per share.

(e) Warrants-

Warrants to purchase 25,000 shares of common stock of the company were issued in 1968. At December 31, 1973, warrants to purchase 11,000 shares at \$7.50 per share, exercisable to March 31, 1975, were outstanding.

9. Income Taxes

(a) United States Income Taxes—

Income taxes in the amount of \$11,000 have been recovered on application of the company's current losses of \$23,000.

In 1972 the company realized a gain of \$392,934 on the sale of shares which was included in the statement of loss and deficit net of estimated income taxes of \$180,000, as an extraordinary item. The actual income taxes pertaining to this gain were \$154,000 and the difference in income taxes payable of \$26,000 has been included as an extraordinary item in the statement of loss and deficit.

(b) Canadian Income Taxes—

As at December 31, 1973, loss carry forwards of approximately \$600,000 were available for application against taxable income of future years. These losses expire \$330,000 in 1974 and \$270,000 in 1978. In addition, the company may claim depreciation for tax purposes in excess of that recorded in the accounts of \$440,000 which is available for application against taxable income of future years.

(c) Australian Income Taxes (see note 13)—

The Australian subsidiary has tax losses of approximately \$10,800 expiring in 1978, \$55,500 expiring in 1979 and \$121,600 expiring in 1980.

None of the subsidiaries have retained earnings.

10. Commitments and Contingent Liability

(a) Contingent Liability—

A subsidiary participated in a program under which a portion of the cost of research and development projects involving the development of two instruments for the sensing of air pollution was borne by the Canadian Government, subject to repayment, as explained below, to the extent that the instruments proved to be commercially successful. Contributions of approximately \$113,460 were received from the Government in prior years, and have been accounted for in accordance with the company's regular practice with respect to research and development projects. Repayments are being made at a fixed rate per instrument sold or rented; the aggregate amount of such repayments is not to exceed the contributions received with interest thereon. A total of \$6,155 has been repaid to date. Such repayments are an element of cost of sales, and are deductible in computing taxable income.

(b) Rental Expense and Lease Commitments—

(i) Rental expense for the year amounted to \$50,717.

(ii) Lease commitments on rented premises are as follows:

Years	Annual rental cost
	\$
1974	53,600
1975-1978	50,900
1979-1987	20.770

(iii) Equipment lease commitments total \$75,250 in each of the next three years.

11. Pension Plans

In 1972, a subsidiary converted its insured pension plan for senior employees to a plan that provides retirement benefits for any employee, equal to 2% of annual salary for each year of employment under the plan. The aggregate cost of the plans was \$21,297 in 1973 (1972—\$25,835). Pension costs are funded, and there was no unfunded liability as at December 31, 1973.

12. Loss Per Share

Loss per share is based on the weighted average number of shares outstanding, with shares issuable upon exercise of options and warrants during the year being included using the treasury stock method. Shares issuable upon conversion of the convertible promissory notes are not included since such conversion would have an antidilutive effect.

13. Subsequent Event

Subsequent to December 31, 1973 the company entered into an agreement to sell to a company to be incorporated, ("Minsearch Surveys Limited"), (of which Barringer's ownership is 50%), the licence to the use of certain equipment in certain areas for a consideration of \$1,100,000. Of this consideration, \$300,000 was received in February 1974. The balance is to be paid at the rate of \$250,000 in three bi-annual instalments and \$50,000 payable in July 1976. The payments are to be funded by the other party to the agreement who has the right to terminate the contract at any time without penalty. Accordingly, Barringer will account for its

share of income from Minsearch Surveys Limited on a cash basis. In the event the contract is so terminated, Barringer may purchase Minsearch's assets for a nominal amount.

In addition the agreement provides for the purchase by Minsearch from Barringer of exploration equipment and the funding of a continuing research and development program related thereto in part from its cash flow. Such research and development work will, in the main, be performed by Barringer.

The agreement also provides for the sale of the Australian subsidiary, Barringer Geosurveys Pty. Limited to Minsearch, subject to regulatory approval and favorable tax rulings. The consideration is to be paid from Minsearch's cash flow. To the extent that Minsearch realizes sufficient cash flow to pay for the shares of the Australian subsidiary, the company's share of the profit on such sale would amount to approximately \$132,300.

14. 1972 Comparative Figures

The 1972 comparative figures have been reclassified to conform with the 1973 presentation.

Opinion of Independent Chartered Accountants

To the Directors and Shareholders of Barringer Research Inc.:

We have examined the consolidated balance sheet of Barringer Research Inc. and subsidiaries as at December 31, 1973 and the related consolidated statements of loss and deficit and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. The company's previous auditors reported on the 1972 consolidated financial statements. They indicated in their report that they had been furnished with the report of other accountants in their examination of the statements of a subsidiary company, Barringer Geosurveys Pty. Limited, and to the extent that their report related to that subsidiary, it was based solely on the report furnished to them.

In our opinion, subject to the realization of the advances of \$297,000 referred to in note 3, the consolidated financial statements present fairly the financial position of the companies as at December 31, 1973 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 on a basis consistent with that of the preceding year.

TORONTO, Ontario, March 8, 1974. COOPERS & LYBRAND
CHARTERED ACCOUNTANTS