

BARRINGER RESEARCH

ANNUAL REPORT 1969

Officers:

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DR. D. RICHARD CLEWS, EXECUTIVE VICE PRESIDENT
DAVID A. WHITEMAN, VICE PRESIDENT
ROBERT J. ARMSTRONG, SECRETARY
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A. R. Barringer, president

Dear Shareholder:

THIS IS our second annual statement as a public company, and I am pleased to report on a year of expanding activity in the earth sciences and environmental monitoring. Our projects have been many and diverse, but we think of them as directed toward two important long-range goals which are: to obtain equity in commercial orebodies by using the Company's position in advanced mineral exploration technology and airborne remote sensing, and to develop our electro-optical techniques to the point where they will see extensive commercial and space-oriented applications in the monitoring and control of pollution and man's environment.

The first category involves the commercial application of the Company's many airborne geophysical and remote sensing devices in conjunction with its expertise in geology and geochemistry in the search for mineral wealth, both on a contract basis and increasingly in participating joint ventures. We seek to achieve a quantum jump in the advance of the Company by having a share in a mine.

The second category applies our innovative approach to chemical analysis of air and water pollution. Through the National Aeronautics and Space Administration, and other government organizations, we are showing that man's environment can be monitored by relatively simple electro-optical methods, both at a local level and potentially with an overall view from space. With worldwide pollution becoming a matter of increasing concern to all, the Company's involvement in this area becomes particularly worthwhile.

Surprisingly the advance technologies of mineral exploration and pollution monitoring overlap extensively in the field of geochemical prospecting and the analysis of trace contaminants. This factor is the rationale behind our dual involvement in these areas; it is the reason why our laboratories are delving deeply into highly sensitive methods of analysis for the remote sensing of the environment.

The implementation of our policies and goals and their effect on the 1969 financial condition of the Company's operations can best be shown in a few examples.

The most obvious impact has been our greatly increased activity in exploration joint-ventures involving the concept, management and conduct of regional programs. Whereas in the past we have often supplied a proprietary instrument to a client for a fee, plus a small speculative percentage in what is found, we now have initiated major explorations with partners. In each case, the field work





D. R. Clews, executive vice president

and project support is financed by the partner; each program is conducted by Barringer Research on a cost reimbursed basis.

This work was begun in late 1968 with the formation of a joint venture with TRW Inc., the Ohio-based aerospace corporation. A 380,000 square-mile region was chosen in Canada and integrated geologic, geophysical, and geochemical methods were applied together with TRW's data processing capability. By the end of 1969, nearly 1000 mining claims had been filed and ground work was continuing on the definition of these. Approximately \$1,400,000 was spent. Should a commercial orebody be found, Barringer Research will retain a percentage interest. The percentage, which can range from one-fifth to one-third, is dependent upon our participation in the financing of the development of the mine. This may be further reduced to 7.5 percent if external exploration support is obtained. Exploration work is expected to continue during 1970, at a similar rate of funding, with the aim of siting drillholes and testing the prospects located.

In mid-year, a second exploration project was fielded in the Fiji Islands. With a few relatively minor restrictions, the Company was able to obtain exclusive exploration and mining rights on commercial deposits located within a five-year period. It was recently announced that this project would also be supported by a joint-venture agreement. Exploration will be funded in phases by our partner, a large mining firm. Approximately one-quarter million dollars were spent in 1969; Barringer will retain a one-fifth interest in any mine located as a result of this project. This interest is also subject to reduction depending upon our participating in the costs of mine development.

The geochemical and geophysical indications in both areas are considered sufficiently encouraging to warrant drilling which will commence in May and continue for several months. Of course the chances for obtaining ore are, as in all mining exploration operations, speculative.

These financed exploration programs expanded our gross revenues. We do this work, without fee or profit, in return for our interest in any commercial ore deposits found as a result of the projects.

If the gross income from funded exploration work is subtracted, it will be noted that operating income for the year is substantially the same as for 1968. Taken out of context, the lower profit of \$35,366 does not reflect the actual nature of our year's activity. We believe the equity positions we have obtained could have considerable financial significance.

Another major policy is to license the manufacture or use of our developed instruments in return for royalties or equity. Again in 1969, our INPUT® Airborne Geophysical System returned nearly \$300,000 from its use. The manufacturing license for the in-stack version of our correlation spectrometer (issued to the New York-based Combustion Equipment Associates Inc. late in 1968) supported the design and preproduction of a rugged pollution-monitoring instrument slated for commercial introduction in mid-1970. The remote-sensing version of this chemical detector was provided to Environmental Measurements Inc., a San Francisco-based applied engineering firm, to investigate its acceptance for remote pollution monitoring. By the end of the year, EMI-supported efforts resulted in contracts for its use.

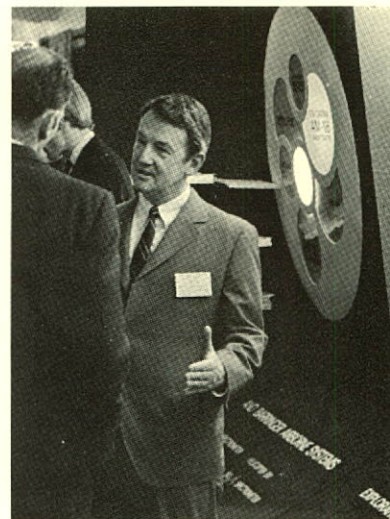
A third major policy is to continue research and development at a maximum rate. In 1969, our Airborne Remote Sensing Development program produced combined Radiophase™ and magnetometer airborne systems for use in Fiji and Canada. The data are recorded in flight for subsequent computer analysis; a concentration on computer programming throughout the year resulted in this new capability. The Electro-Optical Program produced improvement in the basic correlation spectrometer as well as some promising new ideas. An extensive series of patent applications have been filed in this field, some of which we believe could have considerable potential. During the year \$486,240 were spent on these internally financed programs.

From time to time throughout the year I have had the welcomed opportunity to deal with post-graduate students in the earth sciences in my role as Visiting Professor at Imperial College, London. This contact with extensive research programs in mineral exploration at a university has proven most rewarding and stimulating. The value of this arrangement to the Company has been further strengthened by our direct support of certain research programs of key interest in our exploration activities.

Our work load was undertaken by an expanded staff which, with field personnel, exceeded 160 persons in 1969. The increased activity reported above represents the healthy condition of the Company. We are entering the next decade satisfied that we will continue to enjoy benefits from the foundations that have been created in the 1960's.



A. R. BARRINGER
President



D. A. Whiteman, vice president

1969 Highlights



Canadian Geologic Exploration

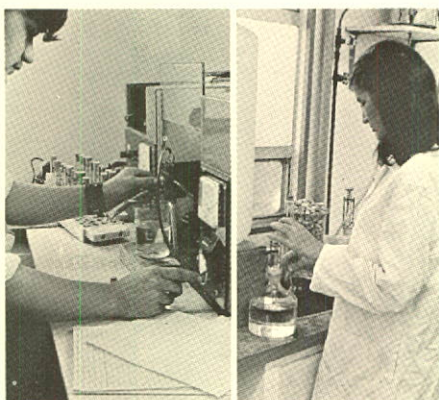
1969 WAS a year of exploration and experimentation. Natural resource development continued in the mining world with year-long field programs and the production of instruments. Our concern about environmental problems led to programs which further assisted in the definition of this pollution market.

The business of finding a commercial ore deposit was approached with enthusiasm. Planning began early in the year for two major field programs covering broad regional areas. By the first thaw, survey crews were in the field in Canada—gathering regional exploration data over an area bound six hundred miles on each side. The results late in the year provided mining claims set aside for ground exploration, and drilling will commence in May, 1970.

In March, an agreement was signed with the Fijian Government for the exclusive right to explore on the major islands of the group, Viti Levu and Vanua Levu. This added another 5,000 square miles to the total area being explored with partners, this time in a geologically attractive portion of the Pacific. In June, geochemical crews were fielded and Barringer-Fiji Limited was incorporated. By October, a sophisticated array of airborne electronics were delivered and an aircraft leased by the Fijian Government was outfitted with our magnetometers, for delineating the magnetic character of the regional subsurface, and with our new Radiophase™ Geophysical System suitable for tracing underground electrical conductivities, the indication of metallic ore.

Meanwhile, programmers and geophysicists were busy developing analyses suitable for computer usage. Both geophysical and geochemical data maps were being generated by year's end from the exploration program results. Much of this effort was in cooperation with our partner, TRW Inc., in developing new computer programs for exploration.

Geochemical analyses for clients continued to grow in 1969. During the summer we again opened a laboratory in the Far North, this time at Whitehorse, Yukon Territories. A permanent geochem-



Geochemistry Laboratory, Vancouver

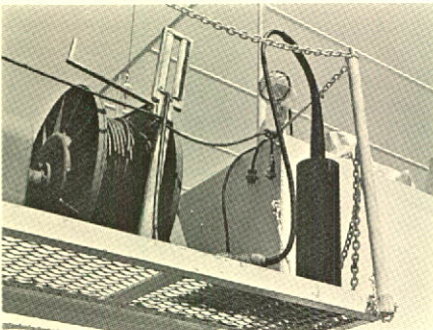
Geochemical Assistants in Fiji



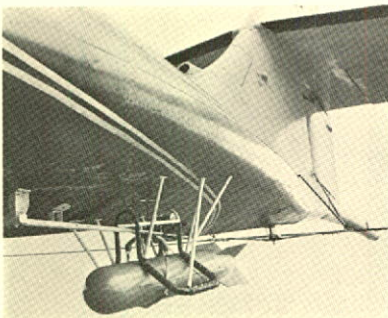
1969 Highlights



R/V Hudson Magnetometer



Magnetometer fish



INPUT® Assembly, PBY Aircraft

ical laboratory was established in Vancouver, British Columbia. All laboratories worked on extra shifts, and in cooperation with the Fijian Geological Survey, we expanded their existing geochemical laboratory facilities.

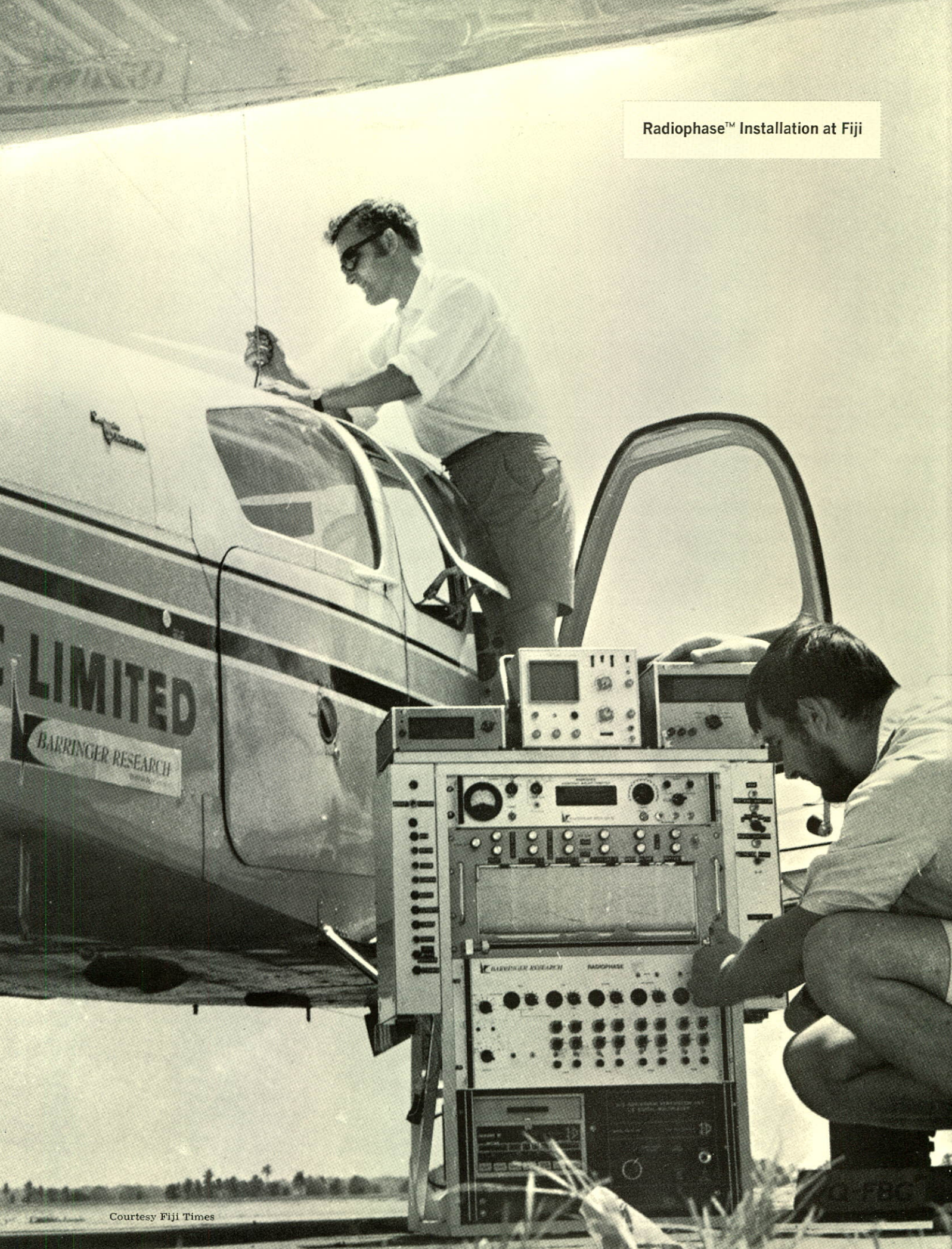
Magnetometers gained acceptance in oceanography and for new airborne installations. Petroleum surveys included our equipment off the eastern Canadian coast on the Scotian Shelf, and several mining contractors used carry-on Barringer magnetometers in their flights. Early, in the Spring, a magnetometer was "floated" on-board the *Benjamin Franklin* along a 1000-mile stretch of the Gulf Stream. And, the year was climaxed by the inclusion of our magnetometer on-board the *R/V Hudson*, the Canadian oceanographic vessel which is making the first circumnavigation of the Western Hemisphere. The instrument will be towed over 40,000 miles.

Electromagnetics continued to play its major role in our activities. This was the second consecutive year that an ore deposit was discovered based upon information gathered by our INPUT® Airborne Electromagnetic Prospecting System, under license to Questor Surveys Ltd., Toronto. The Mattagami Lake Mine orebody in the Sturgeon Lake area of Ontario was located in 1969 on the basis of these unique data. While the Company has no direct financial interest in this discovery, such successes continue to increase the acceptance of our systems and the return of royalties. Currently five aircraft are outfitted around the world.

Our new Radiophase™ equipment has also been installed in several aircraft. In experimental flights over a variety of geologic conditions it shows promise as an aerial means of mapping the electrical conductivity of geologic layers and structure. During the year considerable effort was devoted to the modelling and data processing of the interpretation of this regional mapping method.

In July, a ten-man crew culminated a six-week effort to study Los Angeles smog with a complex array of our correlation spectrometers in comparison with traditional measuring apparatus. The

Radiophase™ Installation at Fiji



1969 Highlights



Pollution Monitoring Aircraft



Correlation Spectrometer, Toronto



Microbus Installation, San Francisco

work was financed by the National Air Pollution Control Administration. In the vicinity of Pomona, California, both long-line and point source versions of the instrument were used to measure nitrogen dioxide near freeways and over open fields, night and day, and under a variety of changing weather conditions. An airplane-mounted spectrometer measured the gas beneath its path; a vehicle mounted unit viewed the pollution above it. The results were combined with a similarly detailed study of sulfur dioxide monitoring techniques in the Toronto area. The final report, substantiating the scientific basis of the method, was in preparation for the Department of Health, Education and Welfare.

Meanwhile, a vehicle was outfitted for commercial introduction of our correlation spectrometer as an air monitoring tool which can measure where other methods cannot. Environmental Measurements Inc. of San Francisco produced data in Los Angeles, San Francisco, Chicago and St. Louis to demonstrate the unique character of the remote-sensing measurements. Industrial customers have had the air quality downwind of their facilities checked; the optimum location of regional air monitoring stations has been defined; research organizations studying the air quality have monitored community-wide areas with the instrument. A valuable service has been performed, and we share in these revenues.

A most significant event took place early in September high over Chicago. Sponsored by the National Aeronautics and Space Administration's Manned Spacecraft Center, a set of correlation spectrometers were placed on a very high altitude balloon to test the feasibility of measuring polluting gases from space. The event had all of the excitement of miniature space launching for our crew. In cooperation with Winzen Research Inc.—the balloon providers—and the National Center for Atmospheric Research—the launch managers—our payload gondola rose into the pre-dawn darkness on September 3. Eight hours later it was drifting over Chicago at an altitude of 114,000 feet and transmitting signals which described

Pomona Smog Monitor for HEW



1969 Highlights



Balloon for Chicago Launch



Liquid Analyser Acceptance



IR-100 Award for Radiophase™

the pollution level below. The project was highly successful, and space hardware for pollution monitoring from earth orbiting satellites has been proposed as a result.

A project under the sponsorship of the Atomic Energy Commission of Canada produced a spectrometer of a slightly different type. This split-beam absorption instrument introduces us to the water pollution market. This "liquid analyser" was built to measure the infrared absorption of heavy water and natural water. As a result, the relative concentrations of these liquids can be detected. This device has been purchased to monitor the heavy water loss from nuclear reactors prior to exhausting to the atmosphere, but the liquid analyser technique can be modified to measure pollutants in water.

The year contained other on-going R&D projects. These included the commercial introduction of an operational three-coil helicopter electromagnetic system (by Geophysical Engineering and Surveys Limited). The U.S. Geological Survey purchased a Radiophase™ System and also supported work in an airborne mercury spectrometer, designed to measure atmospheric mercury "halos" recently found to exist near certain ore deposits.

The activities of the Company were reported at many major society meetings and conventions. In the Fall, our Radiophase™ equipment was honored as one of the 100 most significant new products of 1969. This award, selected by a panel of leading scientists including five Nobel Laureates, is given annually to recognize innovations and organizations for outstanding technical developments.

1969 represented a year of contribution to new methods of mining exploration and the continued introduction of unique new means of chemical analysis. Many of the events outlined above, and others, have been reported in our quarterly journal, *Barringer Research*. This publication, available on request, has assisted us in further describing the year's progress.

Pollution Measuring Balloon Gondola

**WINZEN
RESEARCH INC**



BARRINGER RESEARCH INC. AND CONSOLIDATED SUBSIDIARIES

CONSOLIDATED BALANCE SHEET AS AT DECEMBER 31, 1969 (with 1968 figures for comparison)

ASSETS

CURRENT ASSETS:	1969	1968
Cash	\$ 234,277	\$ 131,321
Accounts receivable:		
Trade (less allowance for doubtful accounts, 1969—\$18,172; 1968—\$8,347) (Note 6)	480,428	411,699
Government grants.....	79,050	130,200
Proceeds of issue of promissory notes.....	—	255,000
Inventories (Note 2).....	114,796	90,897
Deposits, advances and prepaid expenses.....	18,830	37,840
Total current assets.....	927,381	1,056,957
 INVESTMENTS AND ADVANCES:		
Subsidiaries—not consolidated (Note 1)	13,921	14,241
Associated companies (Note 1)	654	11,725
Non-associated companies—at cost (Note 3).....	845,456	850,117
Total investments and advances.....	860,031	876,083
 FIXED ASSETS—at cost (Note 4) :	609,110	524,992
Less accumulated depreciation and amortization.....	332,252	253,420
Net fixed assets.....	276,858	271,572
 OTHER ASSETS—at cost less amortization (Note 5) :		
Patents and trademarks.....	69,828	62,648
Research and development expenditures.....	963,545	598,848
Total other assets.....	1,033,373	661,496
 TOTAL	\$3,097,643	\$2,866,108

The accompanying notes are an integral part of the financial statements.

LIABILITIES AND STOCKHOLDERS' EQUITY

CURRENT LIABILITIES:	1969	1968
Bank loan (Note 6)	\$ 232,500	\$ 232,500
Debenture instalments due within one year.....	93,000	139,500
Convertible subordinated promissory notes, due within one year.....	15,000	—
Accounts payable and accrued charges.....	423,092	355,126
Excess of non-consolidated subsidiary's losses over cost of investment (Note 1).....	—	23,797
Total current liabilities.....	763,592	750,923
LONG-TERM DEBT (Note 7)—less amounts included in current liabilities:		
Debenture	46,500	93,000
Convertible subordinated promissory notes.....	485,000	255,000
Total long-term debt	531,500	348,000
COMMITMENTS AND CONTINGENT LIABILITIES (Note 11)		
STOCKHOLDERS' EQUITY:		
Capital stock (Notes 8 and 9):		
Authorized:		
2,000,000 shares of common stock at 1¢ par value each		
Outstanding and fully paid:		
855,000 shares	8,550	8,550
Paid-in surplus (no transactions during the year)	1,832,112	1,832,112
Deficit	(38,111)	(73,477)
Total stockholders' equity.....	1,802,551	1,767,185
TOTAL	\$3,097,643	\$2,866,108

The accompanying notes are an integral part of the financial statements.

CONSOLIDATED STATEMENT OF INCOME AND DEFICIT
FOR THE YEAR ENDED DECEMBER 31, 1969
(with 1968 figures for comparison)

	1969	1968
NET SALES.....	\$2,045,627	\$1,198,089
REVENUES FROM RESEARCH CONTRACTS.....	387,050	332,276
Total revenue	<u>2,432,677</u>	<u>1,530,365</u>
COST OF SALES.....	1,482,570	792,757
COST OF RESEARCH CONTRACTS.....	312,307	314,106
SELLING, GENERAL AND ADMINISTRATIVE EXPENSES.....	438,986	329,304
AMORTIZATION OF RESEARCH AND DEVELOPMENT EXPENDITURES (Note 5)	111,046	—
Total cost and expenses.....	<u>2,344,909</u>	<u>1,436,167</u>
OPERATING INCOME.....	<u>87,768</u>	<u>94,198</u>
OTHER INCOME CHARGES (CREDITS):		
Loss (gain) on disposals of fixed assets.....	4,770	(15,906)
Interest expense:		
Long-term debt	50,334	18,975
Other—net	14,779	5,054
(Decrease) increase in provision for losses of non-consolidated subsidiaries and associated companies (Note 1).....	(15,877)	10,984
Loss on sale of interest in an associated company.....	10,190	—
(Gain) on sale of common shares in non-associated companies.....	(11,794)	—
Net other income charges.....	<u>52,402</u>	<u>19,107</u>
INCOME BEFORE INCOME TAXES AND EXTRAORDINARY CREDIT.....	35,366	75,091
INCOME TAXES.....	39,500	29,500
(LOSS) INCOME BEFORE EXTRAORDINARY CREDIT	(4,134)	45,591
BENEFIT OF TAX LOSS CARRYFORWARD (Note 10).....	39,500	29,500
NET INCOME FOR THE YEAR.....	35,366	75,091
DEFICIT AT BEGINNING OF THE YEAR.....	73,477	148,568
DEFICIT AT END OF THE YEAR.....	<u>\$ 38,111</u>	<u>\$ 73,477</u>
EARNINGS PER SHARE:*		
(Loss) income before extraordinary credit.....	(\$ 0.005)	\$ 0.061
Extraordinary credit.....	0.046	0.039
Net income for the year.....	<u>\$ 0.041</u>	<u>\$ 0.100</u>

*Earnings per share are based on the average number of shares outstanding, together with shares issuable upon exercise of options and warrants, during the years, adjusted to give effect to the issuance, on March 14, 1968, of 605,000 shares in exchange for the outstanding common shares of Barringer Research Limited.

The accompanying notes are an integral part of the financial statements.

CONSOLIDATED STATEMENT OF SOURCE AND APPLICATION OF FUNDS
FOR THE YEAR ENDED DECEMBER 31, 1969
(with 1968 figures for comparison)

FUNDS PROVIDED:	1969	1968
From operations:		
Net income for the year.....	\$ 35,366	\$ 75,091
Other income charges (net).....	52,402	19,107
Depreciation and amortization.....	<u>210,599</u>	<u>108,322</u>
Funds provided from operations	298,367	202,520
Net cash proceeds from issue of common stock and warrants.....	—	877,670
Promissory notes issued.....	245,000	255,000
Proceeds on disposals of fixed assets.....	5,711	24,141
Repayment of advances by non-consolidated subsidiaries and associated companies.....	15,962	18,765
Proceeds on sale of investments in and advances to an associated company.....	1,116	—
Proceeds on sale of common stock of non-associated companies.....	<u>26,499</u>	<u>—</u>
Total funds provided	<u>592,655</u>	<u>1,378,096</u>
FUNDS APPLIED:		
Purchases of common stock of non-associated companies.....	10,044	30,050
Purchases of fixed assets	102,499	118,499
Additions to patents and trademarks.....	9,504	14,163
Deferred research and development expenditures	486,240	588,352
Debenture instalments	46,500	93,000
Promissory notes due within one year.....	15,000	—
Redemption of preferred shares	—	244,125
Interest expense (net)	<u>65,113</u>	<u>24,029</u>
Total funds applied.....	<u>734,900</u>	<u>1,112,218</u>
(DECREASE) INCREASE IN WORKING CAPITAL FOR THE YEAR.....	(142,245)	265,878
WORKING CAPITAL AT BEGINNING OF THE YEAR.....	<u>306,034</u>	<u>40,156</u>
WORKING CAPITAL AT END OF THE YEAR.....	<u>\$163,789</u>	<u>\$306,034</u>

The accompanying notes are an integral part of the financial statements.

BARRINGER RESEARCH INC. AND CONSOLIDATED SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 1969

1. Principles of Consolidation

The accompanying consolidated financial statements comprise the accounts of the Company and its wholly-owned subsidiary companies, Barringer Research Limited (Limited) (a Canadian company), and Barringer Instruments Inc. Inactive subsidiaries of Limited, none of which is significant, have not been consolidated. Investments in and advances to these subsidiaries and to associated companies are accounted for on the equity method. As at December 31, 1968, the equity of Limited in the losses of one such subsidiary exceeded the aggregate of the investments in and advances to such subsidiary, which excess was provided for in the consolidated financial statements. In 1969, further advances were made by Limited which allowed the subsidiary to satisfy its other creditors. The balance of this provision, after deducting the further advances made, has been credited to income in 1969.

Amounts applicable to Limited have been translated into United States dollars from Canadian dollars at the rate of \$1.00 Canadian = \$.93 U.S. which approximates the prevailing free rate of exchange. Changes in the exchange rate during the year were not significant.

2. Inventories

The major categories of inventories are as follows:

	December 31,	
	1969	1968
Finished goods.....	\$ 35,188	\$ 57,461
Work in progress.....	61,974	18,292
Materials and supplies.....	3,467	2,919
Contracts in progress.....	14,167	12,225
Total	<u>\$114,796</u>	<u>\$ 90,897</u>

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

3. Non-associated Companies

The investment in non-associated companies includes unregistered shares, at cost of \$820,000, of a company whose stock is traded publicly. As at December 31, 1969, the quoted market value of a like number of registered shares of this company was \$1,230,000. The balance of the investment in non-associated companies is represented by stock in closely-held companies.

4. Fixed Assets

Principal categories of fixed assets are as follows:

	December 31,	
	1969	1968
Rental equipment.....	\$215,060	\$200,112
Survey equipment	115,302	79,404
Laboratory equipment	177,454	149,327
Other	101,294	96,149
Total	<u>\$609,110</u>	<u>\$524,992</u>

Depreciation is provided on the straight-line basis over the estimated useful lives of the assets, principally four to ten years. Depreciation so provided and charged in the accompanying consolidated statement of income and deficit amounted to \$86,731 (1968—\$81,269).

5. Other Assets

Patents and trademarks are amortized over their related lives which range from five to seventeen years. Amortization charged in the accompanying consolidated statement of income and deficit amounted to \$2,325 (\$1,604 in 1968).

Effective January 1, 1968, research and development costs incurred during the year (other than in connection with research contracts) in excess of government grants and other outside support therefor are amortized over the following five years. These costs include all applicable overhead expenses. Prior to

1968, direct costs only were included and amortized over three years commencing with the year incurred.

Amortization calculated in accordance with the above practices has been charged in the accompanying consolidated statement of income and deficit as follows:

	1969	1968
On costs incurred prior to January 1, 1968.....	\$ 10,497	\$25,449
On costs incurred since January 1, 1968.....	111,046	—
Total	<u>\$121,543</u>	<u>\$25,449</u>

Costs incurred prior to 1968 were considered to be support for contract research work, and the amortization of these costs has been included in costs of research contracts. Since 1968, company-sponsored research and development has been carried out with the aim of developing new instrumentation and techniques, and has constituted a major portion of the Company's overall efforts. Accordingly, the related amortization has been set out separately in the consolidated statement of income and deficit.

6. Bank Loan

Trade accounts receivable of \$471,653, and term life insurance policies of Limited have been pledged as collateral security to the bank loan.

7. Long-term Debt

The debenture is payable in semi-annual instalments of \$46,500 commencing March 31, 1970, and is secured by a pledge of all of the assets of Limited, excluding life insurance policies and accounts receivable. The book value as at December 31, 1969 of the assets pledged was \$1,697,458 (1968—\$1,241,665). Interest has been paid at varying rates, the rate as at December 31, 1969 being 9¼% per annum.

The convertible subordinated promissory notes are payable at \$15,000 on December 31, 1970 and thereafter in semi-annual instalments of \$30,000 commencing June 30, 1971. Interest is payable at fluctuating rates, the rate as at December 31, 1969 being 9½% 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.

8. Capital Stock

Shares of common stock reserved for issuance as at December 31, 1969 were as follows:

For stock options:	
Options outstanding	33,900
Available for granting future options.....	6,100
For warrants.....	25,000
For conversion of promissory notes.....	25,000
Total	<u>90,000</u>

9. Stock Options and Warrants

On March 14, 1968, the Company adopted a Qualified Stock Option Plan covering 30,000 shares of common stock of the Company. Options may be granted to 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 employee remains in the continuous employ of the Company or a subsidiary, and expires five years from the date of the grant. Information with respect to this Stock Option Plan is summarized as follows:

	Shares	Amount
Options granted in 1968 and outstanding December 31, 1968 (\$5.50 per share).....	21,350	\$117,425
Changes during 1969:		
Options granted (\$5.75 to \$8.00 per share).....	4,150	30,987
Options cancelled	(1,600)	(8,800)
Options outstanding December 31, 1969 (\$5.50 to \$8.00 per share).....	23,900	\$139,612

Under two employment agreements dated October 1, 1967, the Company has also granted, as options not under the Plan, rights to purchase an aggregate of 10,000 shares of the common stock at a price of \$5.00 per share during the period from October 1, 1969 to September 30, 1972. The agreements contain other provisions relating to options similar to those contained in the Qualified Stock Option Plan. As at December 31, 1969, these options have not as yet been exercised, and are outstanding.

Warrants to purchase 25,000 shares of common stock were issued in 1968. The warrants are exercisable at any time up to March 31, 1975 at prices ranging from \$6.00 per share to \$7.50 per share, depending upon the time of exercise.

10. Income Taxes

Canadian income taxes have been eliminated by the application of prior years' loss carryforwards. As at December 31, 1969, loss carryforwards of approximately \$1,009,000 were available for application against taxable income of future years for Canadian income tax purposes, of which approximately \$970,000 resulted from research and development expenditures and patent costs claimed for tax purposes but deferred in the accompanying consolidated financial statements. These loss carryforwards expire \$161,000 in 1971, \$538,000 in 1973, and \$310,000 in 1974.

In addition, the undepreciated cost for Canadian income tax purposes of depreciable assets exceeded their net book value as at December 31, 1969 by approximately \$250,000. This excess, which may be carried forward indefinitely, is also available for application against taxable income of future years on a diminishing-balance basis at specified annual rates. The maximum amount of this excess which could be applied in 1970 is approximately \$50,000.

No liability for United States income taxes has been incurred to date. As at December 31, 1969, loss carryforwards of approximately \$32,000 are available for application against taxable income of future years for United States income taxes, and expire \$5,500 in 1973 and \$26,500 in 1974.

Retained earnings of Limited (\$26,435 Cdn.) are considered to be permanently invested and not available for distribution to the Company. Accordingly, no provision has been made for United States income taxes thereon.

11. Commitments and Contingent Liabilities

Limited has 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 is borne by the Canadian government, subject to repayment, as explained below, to the extent that the instruments prove 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 regular practice with respect to research and development projects (see Note 5). 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 \$720 has been repaid to date. Such repayments are an element of cost of sales and are deductible in computing taxable income.

An annual rental of \$15,300 is payable under a lease which expires January 14, 1986.

12. Pension Plan

Total expense with respect to Limited's insured pension plan for senior employees was \$7,841 for the year (1968 — \$11,568). Pension costs are funded, and there was no unfunded liability as at December 31, 1969.

OPINION OF INDEPENDENT CHARTERED ACCOUNTANTS

DELOITTE, PLENDER, HASKINS & SELLS
Chartered Accountants

55 Yonge Street
Toronto 1, Canada

To the Directors and Stockholders of
Barringer Research Inc:

We have examined the consolidated balance sheet of Barringer Research Inc. and Consolidated Subsidiaries as at December 31, 1969 and the related consolidated statements of income and deficit and source and application of funds 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.

In our opinion, subject to the ultimate recovery of the deferred research and development expenditures (see note 5), these consolidated financial statements present fairly the financial position of the Companies as at December 31, 1969 and the results of their operations and the source and application of their funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Deloitte, Plender, Haskins & Sells

March 16, 1970

