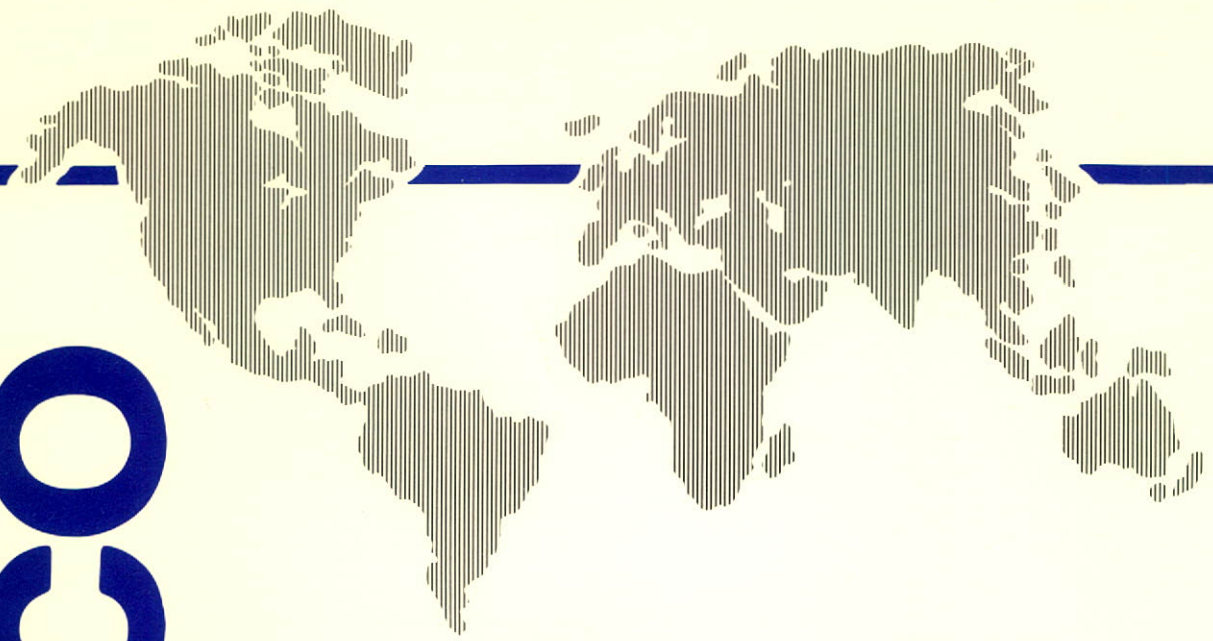


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# Monenco

 Monenco Limited Annual Report 1986

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# ABOUT MONENCO

From its beginnings in 1907 when Lord Beaverbrook founded Montreal Engineering Company, Limited to develop a new technology, electricity, Monenco has actively sought, developed and applied new technologies to its many fields of activity.

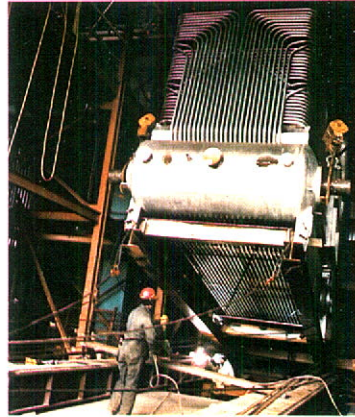
Today, Monenco Limited and its 40 subsidiary and affiliated companies are one of Canada's largest consulting groups, offering consulting services in almost all aspects of modern technology for industrial and resource development. These services are offered through offices in all Canadian provinces, Europe, the United States, Africa, Southeast Asia, the Caribbean and Australia.

Monenco's mission is to put technology to the service of mankind; thus, its business is the development of technology, the application and management of technology and the transfer of technology.

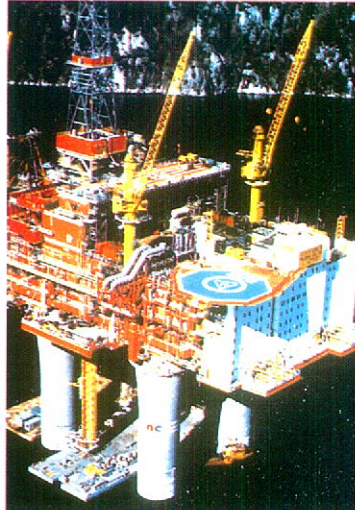
Monenco's strategy for gaining world leadership in some of the most promising technologies includes: concentrating our resources; organizing for the new technologies; creating and sustaining intrapreneurship within the company; attracting external investment capital; making strategic acquisitions of intellectual property; and integrating the new technologies throughout its business.

The next four pages describe some of the new technologies that Monenco is developing and applying as well as some of the emerging technologies with potential for world-wide application.

Monenco is exporting new technologies to the United States, the United Kingdom, China, Indonesia, Nigeria, Haiti, Kenya and elsewhere. The export of services has created thousands of jobs for Canada's highly skilled people and has produced hundreds of millions of dollars of sales for Canadian manufacturers and suppliers.



*Monenco provided engineering for Canada's first fluidized bed combustion boiler at Summerside, P.E.I.*



*Monenco offers state of the art knowledge for offshore oil and gas development.*



*A Monenco company designed the 1000km ± 500kV high voltage DC transmission line from Gezhouba to Shanghai.*

## POWER GENERATION

Monenco has been an industry leader in energy technology since 1907. In the thermal field alone, Monenco has designed 18,000 MW of generating capacity, equivalent to 60 per cent of Canada's thermal generating capacity. Monenco has designed 80 per cent of all thermal plants designed by Canadian engineers at home and overseas.

Of particular significance to many parts of the world where low grade coal is the only readily available fuel is Monenco's experience on the design of the 600 MW Poplar River Thermal Power Station and 750 MW of the Boundary Dam Station for Saskatchewan Power Corporation. These stations burn lignite, demanding innovative designs to function efficiently and reliably. The Poplar River Plant is acknowledged as a world leader for its reliability and availability.

Ontario Hydro exhibited its faith in Monenco's expertise and knowledge of computerized control systems when it awarded London Monenco the design of the Thunder Bay Generating Station. The Thunder Bay Plant is one of the ten generating stations in North America and the only one in Canada completely controlled by digital computers. Monenco designed all of the control systems and software packages incorporated in this fully automated station.

In power transmission, Monenco pioneered extra high voltage DC transmission technology to carry large loads over long distances at minimum cost. This technology has resulted in a major design assignment for the 1000 km  $\pm$  500kV HVDC transmission line from Gezhouba to Shanghai in China. Monenco specialists provided the static VAR compensation technology for reliable system performance that enabled the construction of the Muja-Eastern Goldfields Power System in Australia.

Monenco's services cover new technologies such as fluid bed combustion, coal gasification and slagging combustors. Energy conservation technologies include combined cycle and cogeneration. Monenco also provided engineering for the first commercial fluidized bed combustion boiler installed in Canada at Summerside, PEI. This technology allows the burning of high sulphur coals in an environmentally acceptable fashion.

The technology developed for Canadian power generation projects has been exported around the world. Monenco is now actively pursuing new opportunities in China, India and elsewhere.



*The Thunder Bay Generating Station is the first fully automated generating plant in North America.*



*Monenco exports its advanced thermal power knowledge to Nigeria where it is designing and managing the construction of the 1320 MW Lagos Thermal Power Plant.*

## OIL, GAS AND PETROCHEMICALS

Over 25 years Monenco has acquired state-of-the-art technology in gas processing, oil refining, oil sands development, petrochemicals and heavy water recovery.

Monenco's process specialists are involved in developing advanced technologies such as catalytic cracking of heavy refinery feedstocks, process plant modification for energy conservation, alternative fuel sources such as gasoline from methanol, and bitumen upgrading.

Monenco has earned a leading position in sour gas handling and sulphur recovery process technology to meet stringent emission standards for industrial plants.

Monenco also has significant background in the design of petrochemical facilities. The Polysar Butyl Rubber Plant in Ontario, designed and built by Monenco, is the most advanced plant of its kind in the world. In addition, Monenco has participated in every major pipeline project for transporting oil and gas from Canada's far north, many of which required innovative design solutions.

Over the past decade, Monenco has progressed from its onshore oil and gas technology into the field of offshore oil and gas production by establishing two subsidiary companies in association with Brown & Root. Through these companies and in joint projects with C. G. Doris of Paris, France, Monenco personnel have participated in major transfer of technology programs to acquire the latest technology in offshore oil and gas development.

Monenco companies now offer the complex technology needed for the design and construction of offshore structures, pipelines and subsea installations, topside oil and gas processing installations, marine terminals and oceanography.

## WASTE MANAGEMENT

Monenco is working at the leading edge of environmental technology. Thirty years' experience has developed the skills to manage the sophisticated and complex issues associated with waste treatment and clean-up.

In 1984, the Ontario Waste Management Corporation selected Monenco as the prime engineering consultant for its industrial waste treatment facility.

The initial capacity at the plant will be 150 000 tonnes per year but with provision for expansion to 300 000 tonnes per year.

The facility will combine incineration, physical chemical treatment, solidification and engineered landfill all on one site. The facility will be designed to handle all types of liquid industrial and non-nuclear hazardous wastes except municipal.

Monenco's experience in industrial and hazardous wastes has developed from its history of serving thermal power and industrial clients in the development of process plant facilities, and through undertaking substantial site clean-up and decommissioning of process plants handling toxic materials. In this field, Monenco's experience is unparalleled in Canada.

Significant opportunities for the application of this state-of-the-art technology exist world wide.

## PEAT TECHNOLOGY

Monenco's peat specialists are in the forefront of Canadian and U.S. research at a time when there is growing world-wide interest in this resource for energy, horti/agriculture and as a feedstock for chemicals.

Monenco's involvement in peat began in 1977 with an evaluation of existing peat technology and a summary of Canadian peat resources for the Government of Canada. Since then, projects have been carried out in many Canadian provinces, in several states ranging as far south as Florida, and in several African countries.

Monenco engineers have carried out evaluations of peat dewatering processes and equipment, studied peat gasification to produce alternative fuels, carried out assignments on the production of solid fuel products, peat slurry preparation, pumping and pipeline technology, and operated demonstration projects.

In a recent project, Monenco tested a novel peat extraction method using a Monenco-designed peat slurry pump/macerator. The intent is to marry this system with one of the promising peat dewatering systems currently under development.



- 1 A novel peat extraction method developed in house is tested.
- 2 The lotech bioconversion process produces ethanol, lignin and other chemicals from biomass.

## WASTE WOOD TECHNOLOGY

Monenco is investing in biotechnology research which may one day form the basis of a strong Canadian industry. The Iotech process uses easy to grow currently wasted biomass, such as poplar, to produce ethanol which can be used as an octane enhancer for gasoline, lignin which can be used as an adhesive to replace petroleum based products, and pentoses which can be used as cattle feed. The Iotech pilot plant is now in operation in Ontario.

Monenco also pioneered the development of oriented strand board, a reconstituted timber panel unique because of its strength and price. The process uses previously wasted wood to produce a highly acceptable product.

The design of the two largest OSB production plants in the United States was recently completed. These highly automated plants, representing an investment of more than \$150 million, are producing more than 500 million square feet of 3/8" panel annually.

## INNOVATIVE COMPUTER APPLICATIONS

Geography and graphics have always been essential dimensions of the engineering sciences. Monenco was one of the first North American consulting groups to embrace computer technology and computer aided design and drafting.

Computer software and databases have been developed and applied, based on the Company's broad experience in managing complex projects, to meet the needs of clients in utilities, governments and industry.

## FACILITIES INFORMATION MANAGEMENT

Information is the key to successful utility operation. It is constantly changing. Most utility companies maintain their information manually, which is time consuming, expensive, and often inaccurate. Monenco addressed this problem by developing a unique Facilities Information Management System that allows information to be stored and updated quickly and accurately and at a significantly lower cost. This system is being adopted by American telephone companies.

## LAND INFORMATION SYSTEMS

For governments and major corporations, Monenco has developed a unique process for automating land related information, both spatial and textural. This development took place in cooperation with Canadian surveying and mapping companies. Canadian technology in Land Information Systems is recognized internationally for its efficiency. Monenco is one of the leaders in the development of this technology.

## GEOGRAPHIC INFORMATION SYSTEM

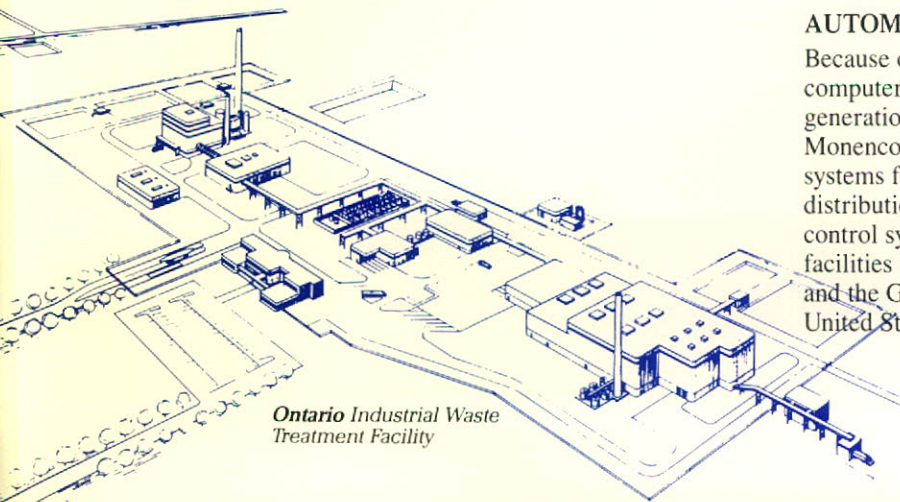
To meet the needs of individual professionals working with geographic data, Monenco developed a geographic information system for microcomputers. The TYDAC spatial analysis system (SPANS) can be used for land use planning, environmental analysis, agriculture and forestry, energy resource development, fisheries, ocean and market research. It enables users to model and analyze information easily and at a fraction of the cost of mini or mainframe alternatives.

## DESIGN AND MANAGEMENT

Monenco's computer specialists have developed customized software for many engineering operations, such as airport planning, design and management and stress analysis, and for project and financial management. The Monenco Project Management System (MPMS), based on 75 years of project experience, covers planning and scheduling, document control, equipment and materials quantities, material procurement and control and accounting. Its principal use today is in large construction projects but it is appropriate for use in industry and by commercial enterprises world wide. It has recently been acquired by a large American bank for control of its major projects.

## AUTOMATION

Because of Monenco's specialized knowledge of computerized instrumentation and control systems, power generation utilities in many countries have sought Monenco's advice and services to install sophisticated systems for control of their generation, transmission and distribution operations. Other applications have included control systems to improve efficiency in manufacturing facilities such as the Polysar Butyl Rubber Plant in Ontario and the Georgia Pacific Strand Board mill in Virginia, United States.



Ontario Industrial Waste Treatment Facility

## EXPORT AND THE TRANSFER OF TECHNOLOGY

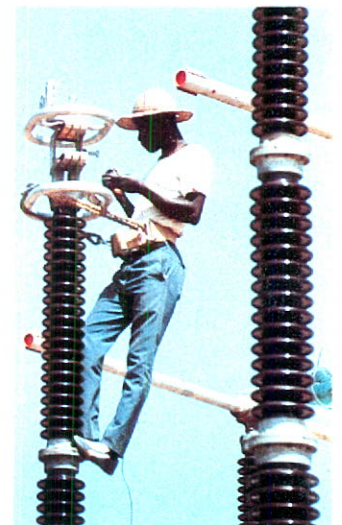
Monenco has worked on overseas projects since 1907, developing and adapting Canadian technology to suit local conditions. Projects have been successfully completed in more than 70 countries.

Monenco works closely with Canadian suppliers and manufacturers to gain assignments that benefit the entire Canadian industrial community. A long history of successful assignments has established Monenco's reputation with Canadian and international financial agencies. The company has also received numerous awards for its export and technical achievements.

In many areas of the world, the company works with local consulting firms to transfer technology through formal and informal training. Transfer of technology is a significant component of the work on the 1600 MW Suralaya Thermal Power Plant, the first coal-fired plant in Indonesia, and the 1320 MW Lagos Thermal Power Plant in Nigeria.

A network of offices and representatives in many other countries provides Monenco with access to new markets.

In the competitive international marketplace, Monenco's advanced technology has been well received. Facilities Information Management Systems, for example, are being used extensively in the United States. Monenco's system, developed by Canadians, has gained acceptance by American utilities because of its unique management capability, quality, accuracy and speed. The system is also being used in the United Kingdom, Canada, as an industrialized nation with an abundance of resources and highly skilled people, possesses world-class technology. Monenco's professionals have experience in these latest technologies, and in the development and application of new technology across the Company's fields of activity. We believe it is our responsibility to work in countries throughout the world to transfer this knowledge and improve the quality of life.



4 *Monenco adapts Canadian technology to suit local conditions.*

*Transfer of technology programs have been offered to developing countries since 1924.*

## Highlights 1986

### Capital

Discussions with several potential investors continue following retention of Merrill Lynch Canada Inc. to assist in seeking equity funds.

### Revenues

Consulting revenues increased fractionally to \$99,462,000 from \$98,644,000 in the previous year. Construction revenues dropped by \$17,404,000 in the year reflecting the 1985 decision to withdraw from lump sum construction projects in the oil and gas markets.

Loss from continuing operations was halved and a small profit shown in the fourth quarter.

Claims and other costs on discontinued construction operations in the USA amounted to \$1,725,000.

### Operations

Overhead and operating expenses were reduced through pay reductions and cuts in benefits.

Continued progress is made in obtaining work in new growth areas with the Company showing market leading skills in Facilities Information Management and Waste Management.

Work continues in Nigeria, Indonesia, Brunei, Egypt and 20 other countries with new projects in Kenya, Haiti, Nicaragua, India and China expanding the international scope of the Company's operations.

### Development

Tony Skinner appointed President as operations rationalisation continued. Occupational Health and Hygienic Services expanded as new service area.

	1986	1985
Operating revenue	\$ 103,481,000	\$120,067,000
Loss from continuing operations	5,195,000	10,881,000
Discontinued operations	1,725,000	(13,000)
Net loss for the year	6,920,000	10,868,000
Per share		
From continuing operations:		
First quarter	.88	.57
Second quarter	.78	.84
Third quarter	.16	1.17
Fourth quarter	(.26)	.93
	1.56	3.51
Discontinued operations	.52	(.01)
Loss for the year	2.08	3.50
Dividends paid — in cash	5,000	12,000
— in shares	585,000	1,518,000
	593,000	1,530,000
Per share — in cash	—	.01
— in shares	.18	.49
	.18	.50
Working capital	1,616,000	8,230,000
Shareholders' equity	13,402,000	20,237,000
Number of employees	1,800	2,100

## Report to the Shareholders

Revenues for the year were \$103 million, a drop of 14.2% from 1985, largely due to the Company's decision in late 1985 to cease undertaking lump sum construction contracts in the oil and gas industry. Revenues from engineering and consulting services were maintained at the 1985 levels as growing revenues in new service areas offset the continued slowness in the energy related sectors. The loss from continuing operations was reduced to \$1.56 per share as compared to \$3.51 per share in 1985. The total loss for the year was \$6,920,000 or \$2.08 per share which includes a \$0.52 per share loss from discontinued operations. Improvement took place in the last quarter as a small profit was realized, the first since 1984. A more detailed analysis of the year's operations is given in the Financial Review on page 17.

In August, the services of Merrill Lynch Canada Inc. were retained to assist the Company in seeking equity funds. Discussions have been held with a number of interested parties and the release of this annual report was delayed on this account. However, as no final agreement has yet been reached, the report is now being released. Shareholders will, of course, be informed as soon as any definitive agreement is made.

The quarterly stock dividend payments of 1.5 Class A shares per 100 shares of any class were paid in February and June 1986. Further payments were suspended pending the resumption of profitable operations.

### Summary of Operations

It is heartening to note that, although results in the early part of the year were disappointing, by the fourth quarter the Company was in a profitable position on its continuing operations. This improvement in the Company's financial results was partly due to the stringent measures which were taken to further reduce overhead costs, but also to the winning of significant contracts during the year in new technical and geographic areas as a result of a refocused marketing drive. Examples of some of these projects are:

- The award to Monenco Consultants Limited and Lalonde, Girouard, Letendre and Associates of Montreal, of the engineering and procurement services for Norsk Hydro's \$ 550 million, 60,000 tonne/year, magnesium plant at Bécancour, Québec. The Monenco LGL Joint Venture had carried out the study phase of the project earlier in the year.
- The design and project management of a staple fibre plant in Iberville, Québec for Hercules Canada Ltd.
- Consulting assistance to Commonwealth Edison to develop rate case testimony for the inclusion of the Byron and Birchwood Nuclear Stations in their rate base.
- Engineering services for the first phase of the Sulphur, Amine, and Sour Water Stripping Units for the Bi-Provincial Upgrader facility for Husky Oil Operations Limited.
- Studies, in association with TransAlta Utilities Corporation, for improving power systems in the developing member countries of the Asian Development Bank.
- Engineering for the rehabilitation of the Kipevu Thermal Power Station of Kenya Lighting and Power Co. Ltd.





- System mapping conversion by the Facilities Information Management Systems Division of Baymont Engineering in Clearwater, Florida for GTE of Illinois and the Rochester Telephone Company.
- Provision of specification and procurement services for the Momotombo Geothermal Plant for the Instituto Nicaraguense de Energia.
- Engineering for the \$500 million Shand Power Station of Saskatchewan Power Corporation.
- Preparation of a national disposal plan for PCB's at Canadian Airports.
- A study of the diversification in Bangladesh of agriculture projects as well as advice on agricultural policy.
- Preparation of a Master Plan for rural electrification in Haiti.
- Engineering for the 500 kv HVDC transmission system from Rihand to Delhi, India on behalf of the World Bank.
- A \$5 million study of the power systems in South China which will be carried out by China Electric Power Consultants, a consortium of Teshmont Consultants Limited (a Monenco company), Monenco Consultants Limited, Ontario Hydro, and Manitoba Hydro. This significant contract is the latest in the Company's growing involvement in the Republic of China and will strengthen our knowledge and experience of this major market.

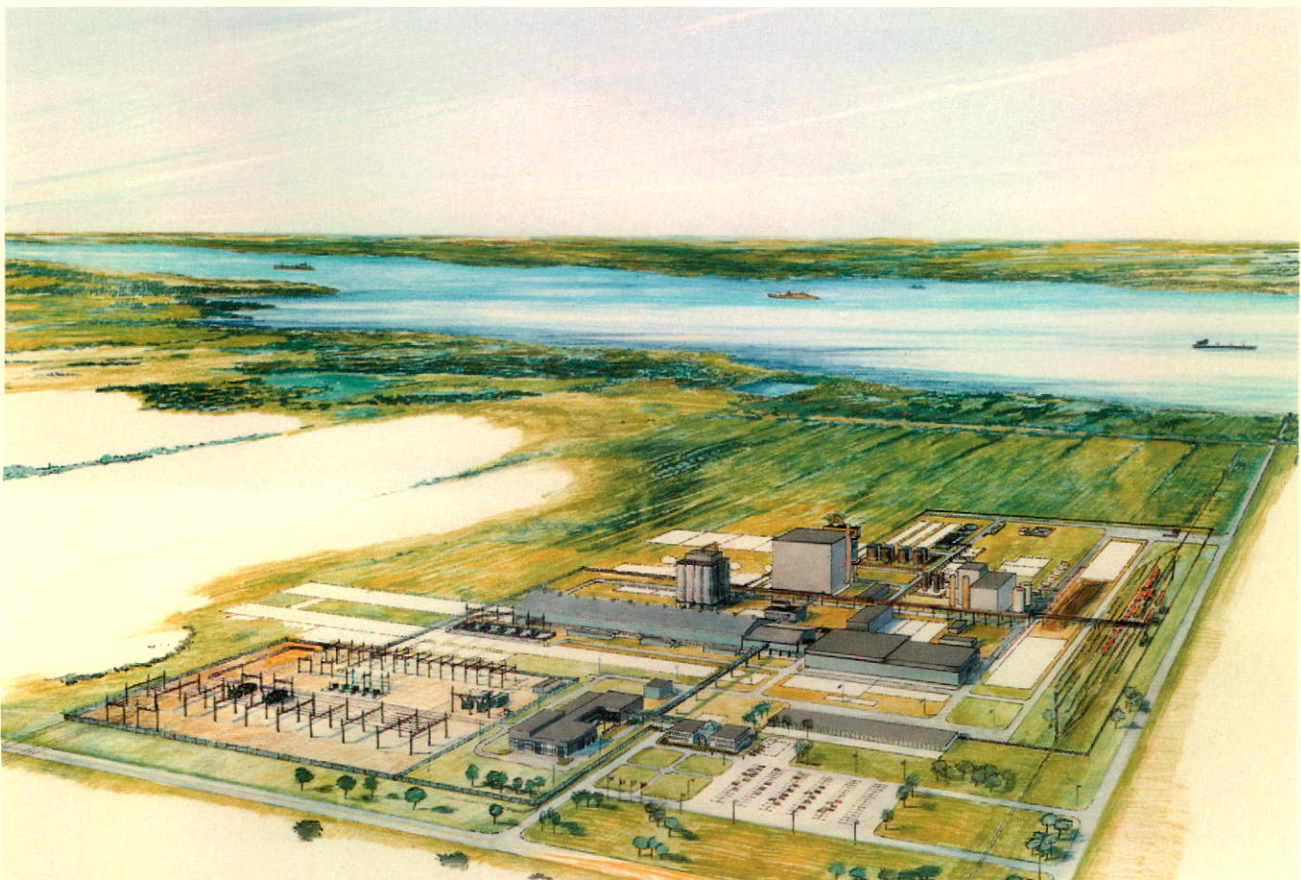
The Company began hiring again in the last quarter after having further reduced personnel from 2100 to 1800 during the first half of the year.

In May 1986, the Company materially reduced costs through tight cost control. Salary reductions were taken by all personnel, from 5% at the lowest level to 25% at the highest level. Vacation entitlement was reduced and the Company halved its contribution to the Employees' Pension Plan. The cost of excess office space and of borrowing operating funds continued to be a burden. This will be materially alleviated in 1987 and 1988.

#### Development

**M**onenco Limited and Submarine Services Inc. of Halifax have formed SSI-Monenco Limited to provide planning, engineering design and project management services relating to the fabrication of military and commercial submarine vehicles.

Monenco Consultants Limited has formed an Occupational Health and Hygienic Services group to meet the great demand for this kind of service throughout Canada. Headquartered in Calgary, with branches in Edmonton, Toronto, and Halifax, it offers professional services in occupational exposure present in industrial work settings, indoor air quality measurements in public buildings, industrial hygiene surveys related to asbestos abatement, organic



*Rapid transit (LRT) system in Calgary, Alberta.  
New spillway at Bears paw in Alberta.*

*Artist's conception of Norsk-Hydro magnesium plant now under construction at Bécancour, Quebec.*

vapors and crystalline silica in the workplace, and noise and ventilation design for contaminant control.

As part of the campaign to reduce overhead costs, the operations of Monenco Engineers & Constructors were merged into Monenco Consultants Limited during the year, and re-organized as the Oil and Gas Division of that Company permitting a significant reduction in executive and administrative personnel.

Mr. T. Skinner was appointed President and Chief Operating Officer of Monenco Limited and President of Monenco Consultants Limited. Mr. H.B. Curtis, Vice-President, Finance of Monenco was appointed President of Monenco Enterprises Limited.

Our success in marketing Facilities Information Management Systems in the United States continued with the opening of a marketing office in the Los Angeles area of California later in the year. The long range plan is to establish this as a fully equipped operating office as soon as the market develops in this region.

#### Outlook

Operating results for the last quarter of 1986 and the first quarter of this year indicate that the Company has at last "turned the corner" towards profitable operations, and the forecast for the year 1987 indicates that this will be achieved, particularly if additional equity is obtained during the year.

We are encouraged by a resurgence in the electric utility business in Canada with the addition of coal-burning units in Nova Scotia, New Brunswick and Saskatchewan, and the

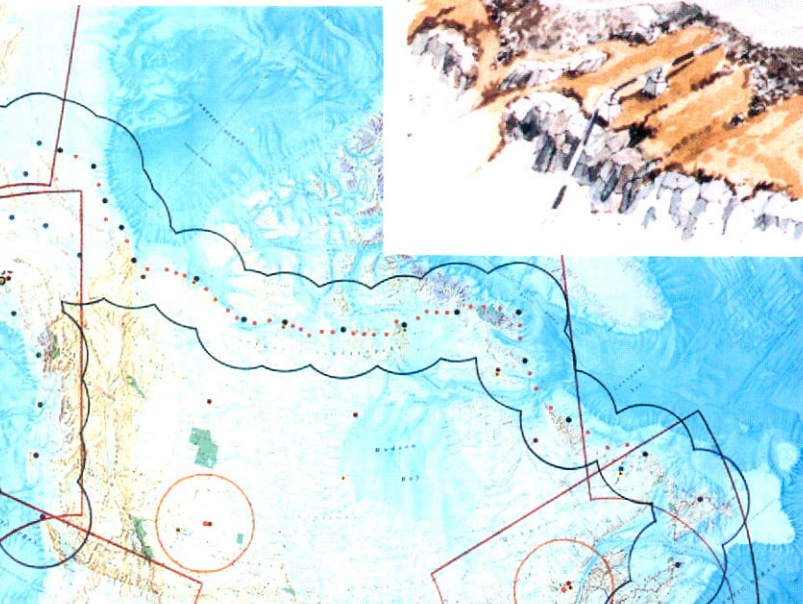


*Mazeppa Gas Plant in Alberta.*



*Northern Early Warning System and artist's conception of typical installation. Monenco Consultants is the project manager for this project.*

Photo courtesy of Department of National Defence and rendering courtesy of New North Consultants.



possibility of new hydroelectric facilities in Quebec and British Columbia getting underway soon. The recent stabilization in oil prices has revived interest in oil projects throughout Canada which could lead to significant project work for Monenco.

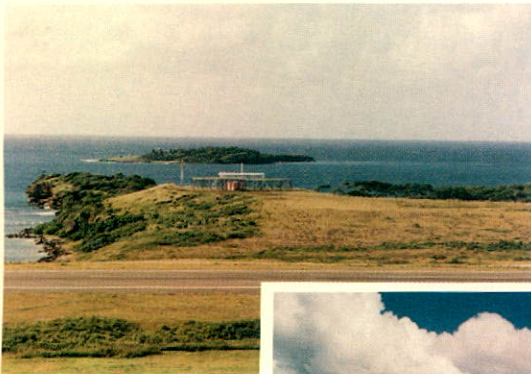
The Company continues to expand its services in the field of waste management. 1986 saw its expertise in use in oil spill clean-up, in providing advice to clients in the rehabilitation of old refinery sites and in the decommissioning of gas plants. We look forward to further expanding our know-how in the treatment of hazardous and non-hazardous waste as well, particularly relating to the incineration of municipal waste. The Company's experience as the country's leader in the design, construction, and operation of thermal power plants is extremely valuable in the incineration of garbage, and with more and more landfill sites being closed throughout North America, the Company believes this will be a significant new market for its expertise. The Company recently received a major assignment in the United States and is looking forward to additional contracts as the year progresses.

Finally, this report cannot be completed without paying special tribute to the forbearance and dedication of the employees of the Monenco companies. Cuts in salaries and vacation time are not easy to take, but our employees have been more than willing to take personal sacrifices to help the Company through these difficult times. We look forward to the day when their salaries and fringe benefits will be returned to normal. Their efforts on behalf of the Company and its shareholders and their pride in their work is a credit to them all.

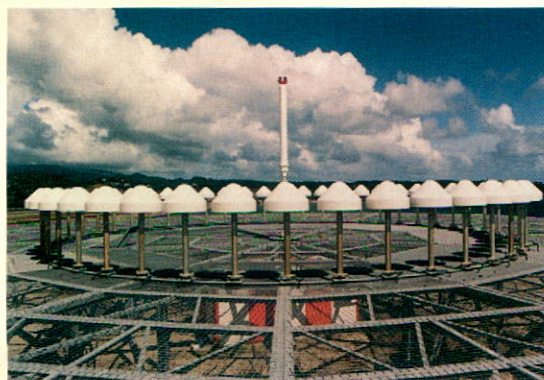


**J.K.C. Mulherin**

*Chairman of the Board*



*DVOR-DME installation at La Salines airport in Grenada.*



*Artist's conception of Control Tower installation.*

# Consolidated Balance Sheet

December 31, 1986

in thousands	1986	1985
<b>Assets</b>		
Cash (Note 7)	\$ 2,260	\$ 944
Short term (Note 7)	3,919	5,812
Accounts receivable (Note 7)	44,362	50,986
Income taxes recoverable	3,024	4,776
Prepaid expenses	1,639	1,141
Current assets	55,204	63,659
Fixed assets (Note 2)	10,515	10,446
Computer programmes and industrial processes	5,202	4,310
Goodwill	792	952
	<b>\$71,713</b>	<b>\$79,367</b>
<b>Liabilities</b>		
Bank Loans (Note 8)	\$29,013	\$30,388
Accounts payable	19,721	16,460
Long term debt due within one year	1,404	944
Deferred revenue	3,375	6,671
Deferred income taxes	75	966
Current liabilities	53,588	55,429
Long term debt (Note 3)	4,539	3,515
Deferred income taxes	184	186
	<b>58,311</b>	<b>59,130</b>
<b>Shareholders' Equity</b>		
Share capital (Note 4)		
Subordinate voting shares	5,102	4,427
Common shares	125	125
Retained earnings	8,175	15,685
	<b>13,402</b>	<b>20,237</b>
	<b>\$71,713</b>	<b>\$79,367</b>

Approved by the Board



**J.K.C. Mulherin**  
Director



**Alastair D. Cameron**  
Director

**Consolidated Statement of Income and Retained Earnings**

for the year ended December 31, 1986

in thousands	1986	1985
Revenue from operations	\$103,481	\$120,067
Direct costs	69,540	91,487
Gross margin	33,941	28,580
Operating expenses	41,545	46,996
Loss from operations	7,604	18,416
Interest and other income	513	892
	7,091	17,524
Recovery of income taxes	1,896	6,643
Loss from continuing operations	5,195	10,881
Discontinued operations	1,725	(13)
Loss	6,920	10,868
Retained earnings at beginning of year	15,685	28,083
	8,765	17,215
Dividends paid – in cash	5	12
– in shares	585	1,518
Retained earnings at end of year	\$ 8,175	\$ 15,685
Earnings per share		
Continuing operations	\$ (1.56)	\$ (3.51)
Discontinued operations	(.52)	.01
Loss	\$ (2.08)	\$ (3.50)
Dividends per share		
Cash	\$ –	\$ .01
Shares	.18	.49
	\$ .18	\$ .50

## Consolidated Statement of Changes in Financial Position

for the year ended December 31, 1986

in thousands	1986	1985
Operations		
Loss for year	\$(6,920)	\$(10,868)
Charges to operations not requiring cash outlays in current year		
Depreciation and amortization	4,138	4,222
Deferred income tax	(893)	(3,961)
Increase in accounts payable	3,261	652
Reduction in short term investments	1,893	746
Decrease (increase) in income taxes recoverable	1,752	(1,543)
Decrease in accounts receivable and prepaid expenses	6,126	10,248
Payment of deferred income taxes	–	(416)
Drawdown in deferred revenue	(3,296)	(501)
Net cash receipt (outflow) from operations	6,061	(1,421)
Financing and investment transactions		
Net decrease (increase) in long term debt	(1,484)	27,467
Computer programmes and industrial processes	1,669	1,625
Purchase (net sale) of fixed assets	3,264	(28,897)
Cash dividends	5	12
Goodwill acquired during year	6	414
Share issue	(90)	(680)
Net (receipt) outflow from financing and investments	3,370	(59)
Decrease (increase) in bank indebtedness, net of cash balances	\$ 2,691	\$(1,362)

# Explanatory Notes to the Consolidated Financial Statements

## 1. Accounting Policies

a) The accompanying financial statements are prepared in accordance with accounting principles generally accepted in Canada and conform in all material respects with International Accounting Standards.

### b) Principles of consolidation

Monenco carries on its business through subsidiary and associated companies. The accounts of the wholly owned subsidiary companies are fully consolidated with those of Monenco. Other companies, which are principally corporate and unincorporated joint ventures established to carry out specific projects or provide specialized services, are consolidated on a proportionate basis in relation to Monenco's interest therein, after eliminating intercompany charges. The Company's share of the assets, liabilities, revenues and expenses of associated companies is as follows:

in thousands	1986	1985
Current assets	\$ 7,699	\$ 6,998
Investments at cost	229	243
Fixed assets, at cost less accumulated depreciation of \$1,305 (\$1,828 in 1985)	3,261	3,107
	<u>11,189</u>	<u>10,348</u>
Current liabilities and Long term debt	7,477	6,627
Equity	\$ 3,712	\$ 3,721
Revenue from operations after elimination of intercompany transactions	\$ 17,245	\$ 17,456
Operating expenses	17,184	17,826
Income (loss) before provision for income taxes	\$ 61	\$ (370)

Goodwill, being the excess of cost of shares in acquired companies over the book value of underlying assets is being amortized on a straight-line basis over 10 years.

### c) Revenue determination

Most contracts for consulting and construction services are undertaken on a "cost-plus" basis, where revenues are recognized as services are rendered. When contracts of a lump sum nature are undertaken, they are accounted for on the "percentage-of-completion" basis with revenues being recognized only to the extent of the work completed. Losses, if any, are provided for in full as soon as they become apparent.

### d) Foreign currency translation

The foreign branches and subsidiaries of the Company are an integral part of the group which denominates its operations in the Canadian dollar.

Accordingly foreign revenues and expenses are translated into Canadian dollars at the average rates of exchange for the year. Assets and liabilities are translated at the year end rates. Gains and losses from translation have been included in the consolidated statement of income.

### e) Fixed assets and depreciation

Fixed assets are stated at cost. Depreciation on equipment is provided mainly on the straight-line method at rates which are designed to amortize the carrying value of the assets over their estimated useful lives.

### f) Research, development and proposal costs

Research, development and proposal costs are charged to operations as incurred, except for the costs related to the development or acquisition of proprietary computer programmes and industrial processes which are amortized over their estimated useful lives, typically three years.

## 2. Fixed Assets

in thousands	1986	1985
Buildings	\$ 117	\$ 384
Furniture and fixtures	6,116	6,361
Machinery and equipment	4,916	4,926
Computer equipment	13,024	12,102
Leasehold improvements	2,883	3,023
	<u>27,056</u>	<u>26,796</u>
Less: accumulated depreciation and amortization	16,768	16,672
	<u>10,288</u>	<u>10,124</u>
Land	227	322
	<u>\$10,515</u>	<u>\$10,446</u>
Depreciation and amortization Charged to direct costs	\$ 2,678	\$ 2,750
Charged to operating expense	1,455	797
Charged to discontinued operations	5	675
	<u>\$ 4,138</u>	<u>\$ 4,222</u>

### 3. Long Term Debt

in thousands	1986	1985
Loans, principally for the purchase of equipment and obligations under capital leases, with interest rates from 8% — 11 3/4%	\$5,943	\$4,459
Less: Portion included in current liabilities	1,404	944
	<u>\$4,539</u>	<u>\$3,515</u>

Estimated repayments of long term debt for each of the four years subsequent to 1987 are:  
1988 — \$597,000; 1989 — \$660,000; 1990 — \$1,909,000; and 1991 — \$359,000.

Interest expense in thousands	1986	1985
Long term debt	\$ 391	\$ 2,577
Short term debt	3,891	3,599
	<u>\$ 4,282</u>	<u>\$ 6,176</u>

### 4. Share Capital

#### a) Authorized and outstanding

	Authorized	Issued Shares	Amount
Class A subordinate voting shares of no par value	<u>Unlimited</u>		
Balance at beginning of year		2,719,050	\$4,427,000
Issued in year			
Stock dividends		97,028	\$585,000
Other		<u>20,990</u>	<u>\$90,000</u>
Balance at end of year		<u>2,837,068</u>	<u>\$5,102,000</u>
Class X common shares of no par value	<u>Unlimited</u>		
Balance at beginning and end of year		<u>536,192</u>	<u>\$125,000</u>
Preferred shares	<u>Unlimited</u>		
Balance at beginning and end of year		<u>Nil</u>	<u>Nil</u>

b) Rights of Subordinate Voting and Common Shares  
Class A shares carry one vote per share. Class X shares carry five votes per share. All shares rank equally as to dividends.

#### c) Changes in Capital Structure

During the year the share capital was revised by:

- i) Consolidation of Class B shares into Class A shares and Class Y shares into Class X shares.
- ii) Removal of limitation on number of Class A and Class X shares authorized.
- iii) Creation of an unlimited number of preferred shares.
- iv) Cancellation of the class of preferred shares previously used for stock dividends.

### 5. Contingencies and Commitments

a) In the normal conduct of the operations there are pending claims by and against the Company and its subsidiary and associated companies. It is the opinion of management, based on advice and information provided by legal counsel, that final determination of these claims will not materially affect the consolidated financial position or results of operations of the Company.

b) Premises utilized by subsidiary and associated companies are occupied under operating leases of various lengths not exceeding seven years' duration. Minimum annual rental commitments under these operating leases for the subsequent five years amount to:

1987 — \$7,920,000; 1988 — \$7,154,000; 1989 — \$5,140,000; 1990 — \$4,829,000; 1991 — \$4,641,000.

c) At December 31, 1986 certain subsidiary and associated companies had losses which had accumulated to \$28,000,000 available to be carried forward to reduce their taxable income of future years. Of the total, \$18,000,000 will expire if not used between 1987 and 1993, and the balance between 1993 and 2001. The potential tax benefits relating to these losses have not been reflected in the accounts.

### 6. Segmented Information

#### a) Industry segments

The Company conducts the predominant part of its business as consulting engineers and project managers.

#### b) Geographic segments

The geographic segmentation of the Company's business is shown in the table on page 16.



# Auditors' Report

## 7. Nigerian Operations

The Company conducts a significant part of its business in Nigeria. 1986 revenues from these operations amounted to \$4,201,000 (1985-\$7,438,000).

At December 31, 1986 its net assets in Nigeria or due from Nigerian clients were:

in thousands	1986	1985
Cash and short term deposits in Nigerian funds	\$ 741	\$ (174)
Accounts receivable		
Denominated in dollars	3,306	3,191
Denominated in naira	4,286	9,344
Other (net)	(417)	(1,947)
	<u>\$7,916</u>	<u>\$10,414</u>

## 8. Bank Loans

Bank loans amounting to \$3,847,000 at December 31, 1986 are secured by assignment of book debts of certain subsidiary and associated companies.

The company has also guaranteed bank loans of an associated company which amount to a further \$1.6 million.

## 9. Income Taxes

The average federal and provincial rate of income tax in Canada on the Company's operations is 47%. Similar rates prevail in most of the countries in which it operates.

The composition of the 1986 tax recovery credited to operations is as follows:

(expressed as a percent of pre-tax loss)	%
Recovery of prior years' taxes at average tax rate	47
Reduction in tax recovery from net losses not eligible for current tax relief	(23)
Other	3
Tax recovery in year	<u>(27)</u>

## 10. Pension Plans

Most of the Monenco companies have pension plans for their employees. All such plans are fully funded and so maintained on a current basis.

## To the Shareholders of Monenco Limited:

We have examined the consolidated balance sheet of Monenco Limited as at December 31, 1986 and the consolidated statements of income and retained earnings and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the Company as at December 31, 1986 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

PRICE WATERHOUSE

Chartered Accountants

Montreal, Canada, June 12, 1987

## Management's responsibility for financial statements

The financial statements of Monenco Limited have been prepared by Management in accordance with generally accepted accounting principles currently in use in Canada.

The financial statements have been reviewed by the Audit Committee and together with the other information in this annual report, have been approved by the Board of Directors. The financial statements have been examined by Price Waterhouse, Chartered Accountants, whose report appears on page 15. Price Waterhouse also examined the financial statements of most of the subsidiary and associated companies which are consolidated with those of Monenco. The statements of other such companies have been examined by other public accountants.

The financial and operating data elsewhere in this report are consistent with the financial statements.

## Revenue Segmentation

### Geographic Segmentation of Operations

Revenue	1986		1985	
	in thousands	%	in thousands	%
North America				
Canada				
Atlantic Provinces	\$ 6,796	6.6	\$ 7,383	6.1
Central Canada	26,297	25.4	21,824	18.2
Prairies	23,895	23.1	41,797	34.8
British Columbia and Territories	1,474	1.4	2,049	1.7
	58,462	56.5	73,053	60.8
United States	22,761	22.0	18,618	15.5
	81,223	78.5	91,671	76.3
Overseas				
Africa	6,283	6.1	10,845	9.1
Caribbean and Latin America	870	.8	1,471	1.2
Asia	12,047	11.6	14,534	12.1
Europe and Australia	3,058	3.0	1,546	1.3
	22,258	21.5	28,396	23.7
	\$103,481	100.0	\$120,067	100.0
Gross Margin				
North America	\$ 26,246	32.3	\$ 20,004	21.8
Overseas	7,695	34.6	8,576	30.2
	\$ 33,941	32.6	\$ 28,580	23.8
Assets				
North America	\$ 52,068	72.4	\$ 57,589	72.6
Overseas	19,845	27.6	21,778	27.4
	\$ 71,913	100.0	\$ 79,367	100.0

### Revenue by Type of Service

Revenue	1986		1985	
	in thousands	%	in thousands	%
Energy	\$ 33,871	32.7	\$ 40,148	33.4
Petrochemical	9,460	9.1	12,315	10.3
Industrial	18,227	17.6	17,110	14.3
Resource	10,256	9.9	10,074	8.4
Computer Services	14,953	14.5	7,995	6.7
Management Consulting	7,523	7.3	6,492	5.4
Construction	4,019	3.9	21,423	17.8
Other	5,172	5.0	4,510	3.7
	\$103,481	100.0	\$120,067	100.0

### Basis of Classification

Revenue is segregated on the basis of the location of the client. Such services may be performed in the client's geographic area and at any of the Company's offices. Assets are segregated by physical location except for accounts receivable which are segregated by debtor.

# Financial Review

## Revenues

Revenue from operations declined by \$17 million from the previous year, principally reflecting the Company's decision to withdraw from firm price construction for the oil and gas industries in view of the low margins prevailing in this sector. Marine construction also decreased in the year because of the low level of expenditures by all levels of government in the development and maintenance of marine facilities.

Consulting revenues were maintained at 1985 levels; arresting a four-year decline. However, the mix of clients changed with revenues from the Company's newer lines of business — computer services, management consulting and industrial clients — offsetting the continued low level of activities in the Canadian energy sectors. These operations showed steady growth, particularly in the fourth quarter when there was increased activity in Eastern Canada.

### Revenues by quarter were:

in thousands	1986	1985
First	\$ 24,939	\$ 32,825
Second	25,496	30,013
Third	25,062	28,804
Fourth	27,984	28,425
	<u>\$ 103,481</u>	<u>\$ 120,067</u>

Activities in the United States continued to grow, principally from the expansion of the Facilities Information Management computer services provided to US telephone companies. Revenues from Africa continued to decline commensurate with the reduction of the Company's involvement in Nigeria where no new contracts were accepted in the year.

### Gross Margin and Operating Expenses

Margins on revenues improved significantly in the year. This was in part due to the reduction in construction activities which had extremely low margins in 1985. It also reflects greater efficiency in foreign operations and a firming in margins generally available as these start to recover from the uneconomic levels of the early years of this decade.

Operating expenses were again reduced as the measures taken in previous years to cut the overhead expenses began to pay off. In addition, pay cuts of up to 25% were instituted during the year along with reductions in pension contributions and vacations. These somewhat severe measures were necessary to offset the continuing high costs of premises and the need to pay rental on unoccupied space. Reductions in these costs will take place in 1987 and 1988 and the Company hopes to eliminate some of these pay cuts in the course of 1987.

Interest costs (see Note 3) remained a significant burden as operating debt was little reduced from 1985 levels. Long term debt costs fell, reflecting the pay down in late 1985 of mortgage loans when Monenco's interest in its Calgary office building was sold.

## Income

Interest and other income declined as a result of lower rates and the use of funds in operations. The income tax recovery is far below the notional tax rates applicable to the Company's operations as prior years' profits were insufficient to offset more than a small part of the 1986 loss. The balance of the loss will be carried forward and will be available to reduce the taxation of future years' profits in the same way that earlier losses in the US have eliminated any taxation of the 1986 US operating profits.

In 1983 and 1984 the Company's US construction arm, McCullough Associates, Inc., sustained a significant loss on a sewer rehabilitation project in Texas. A claim was brought against the municipality involved for compensation of these excess costs and loss of profits, however, a local jury awarded damages against the Company instead. This verdict has been appealed and the final disposition of the appeal should be known in mid 1987. Meanwhile, a provision has been made for this award and the related legal costs as a cost of discontinued operations in 1986.

### Segmented Information

Data on the distribution of the Company's revenues, gross margins, and assets is given on page 16 of this report. Significant changes in sources of revenues and changes in margins were discussed earlier in this commentary. The portion of the Company's assets outside North America remained unchanged in the year, despite the reduction in the total net assets in Nigeria (see Note 7). This reflects the increased activity of Monenco Associates in the UK and the start-up in late 1986 of a number of new international projects.

### Changes in Financial Position

Throughout the year the overall liquidity of the Company continued to be extremely tight, with current bank borrowings remaining around the \$30 million level. However, collections of accounts receivable and of tax refunds enabled the Company to absorb the loss from operations.

Investments in fixed assets, principally computer facilities in the US, in completion of the Iotech enzymatic cellulose conversion pilot plant and also in completion of the latest Monenco Project Management computer programmes were fully funded from depreciation and special equipment purchase loans.

Accounts payable increased reflecting the accruals in connection with discontinued operations and the rigorous cash management measures used in the year.

Progress continued in reducing the total net assets in Nigeria as collections again exceeded billings. In mid 1986 the Nigerian government began a process of moving towards a free market for its currency, the naira. The impact of the resulting devaluation of the naira had been substantially anticipated by the Company and it is considered that adequate provisions have been made against any losses on completion of its contracts and collection of fees.

### Share Capital

Share capitalization increased from the continuation of payment of dividends in the form of Class A shares. In view of continuing losses and declining market prices for these shares, this policy was suspended in mid year. Class A shares were also issued to terminating employees in exchange for their Monenco Holdings shares. These shares are held for resale to employees in 1987-8.

## Ten Year Summary

Year	Revenue from operations*	Operating income*	Net income*	Operating income per share	Net income per share	Dividend per share	Book value per share	Market price (Valuation day \$3.00)
1977	95,222	5,027	5,027	1.72	1.72	.47½	8.46	6½ – 9½
1978	103,574	5,966	6,659	2.04	2.28	.55	10.20	8¼ – 14
1979	109,981	5,319	5,319	1.82	1.82	.70	11.31	10 – 13¾
1980	127,677	7,387	5,479	2.53	1.88	.70	12.49	11 – 15½
1981	176,891	6,405	6,405	2.19	2.19	.85	13.83	12½ – 18¼
1982	181,369	5,098	5,098	1.75	1.75	.90	14.68	9 – 17
1983	118,248	2,914	(4,463)	1.00	(1.53)	.90	12.25	10½ – 15½
1984	118,147	(4,165)	(4,165)	(1.40)	(1.40)	.59½	10.18	8 – 13¾
1985	120,067	(10,881)	(10,868)	(3.51)	(3.50)	.50	6.21	7 – 9¾
1986	103,481	(5,195)	(6,920)	(1.56)	(2.08)	.18	3.97	3½ – 8¼

\*Expressed in thousands of dollars

# Monenco Limited

## Directors

Robert G. Black, Partner,  
Black & Company, Calgary  
Alastair D. Cameron, Senior Consultant,  
Monenco Consultants Limited, Montreal  
Lawrence A. Carey, Engineering  
Consultant, Calgary  
Guy Decarie, President,  
Canamont Construction Inc., Montreal  
John S. Foster, \*Engineering Consultant,  
Toronto  
Albert W. Howard, \*Corporate Consultant,  
Calgary  
Bradley T. McManus, Solicitor,  
Black & Company, Calgary  
J.K. Conrad Mulherin, Chairman and  
Chief Executive Officer, Monenco  
Limited, Montreal  
Graham J. Pollock, President,  
Alta Telecom International Ltd.,  
Calgary  
Christopher Ritchie, Engineering  
Consultant, Calgary  
G. Neville C. Rivington, Senior  
Consultant, Monenco Limited,  
Ottawa  
Alastair H. Ross, \*President,  
Allaro Resources Ltd., Calgary  
Walter J. Smith, Senior Consultant,  
Monenco Consultants Limited,  
Montreal

\*Audit Committee Member

## Officers

J.K. Conrad Mulherin — Chairman  
and Chief Executive Officer  
T. Skinner — President and Chief  
Operating Officer  
Philip C. Veinot — Vice-President  
H. Barrie Curtis — Vice-President  
Vincent P. Leahy — Secretary-Treasurer

## Head Office

400 Monenco Place  
801-6th Avenue, S.W.  
Calgary, Alberta

## Act of Incorporation

Business Corporations Act (Alberta)

## Stock Exchanges

Alberta Stock Exchange  
Montreal Exchange  
Toronto Stock Exchange

## Transfer Agent and Registrar

Montreal Trust Company  
Calgary, Montreal and Toronto

## Auditors

Price Waterhouse, Montreal

## Subsidiaries

wholly owned unless otherwise indicated, with percentage of  
ownership  
Monenco Consultants Limited  
Monenco Engineers & Constructors Inc.  
Monenco Enterprises Limited  
Monenco Inc.  
Monenco Asia (Pte.) Ltd. (93)  
Monenco Associates Limited  
Monenco Jamaica Limited  
Monenco Japan Inc.  
Monenco Maritimes Limited  
Monenco Nigeria Limited (60)  
Monenco Offshore Limited (75)  
Monenco Pipeline Consultants Limited  
Baymont Engineering Company  
Carlson & Sweatt-Monenco Inc.  
Hallmark Engineering Ltd.  
Hoyles Niblock Overseas Ltd.  
La Société d'Ingénierie Cartier Limitée  
MAPLE Computing Services (Pte.) Ltd. (95)  
McCullough Associates, Inc.  
Montreal Engineering Company (Canada) Limited  
Montreal Engineering (Overseas) Limited  
SBR Offshore Limited (60)  
Saskmont Engineering Ltd.  
Sertel Ltee (74)  
ShawMont Ltd.  
ShawMont Newfoundland Limited  
The DPA Group Inc.

## Associated Companies

(with percentage of ownership)  
Both Belle Robb Limited (33-1/3)  
Brumon Sendirian Berhad (49)  
Canamont Construction Inc. (50)  
Canatom Inc. (33-1/3)  
London Monenco Consultants Limited (50)  
Martec Limited (39)  
NPM Nuclear Project Managers (Canada) Inc. (22)  
St.-Laurent Dredging Inc. (50)  
Saskmont Engineering Company Limited (49)  
ShawMont Nigeria Limited (30)  
Spectrocan Engineering Inc. (25)  
SSI Monenco Limited (40)  
Teshmont Consultants Inc. (50)  
Tidal Power Consultants Limited (50)  
Wade Reproduction Services, Inc. (45)

