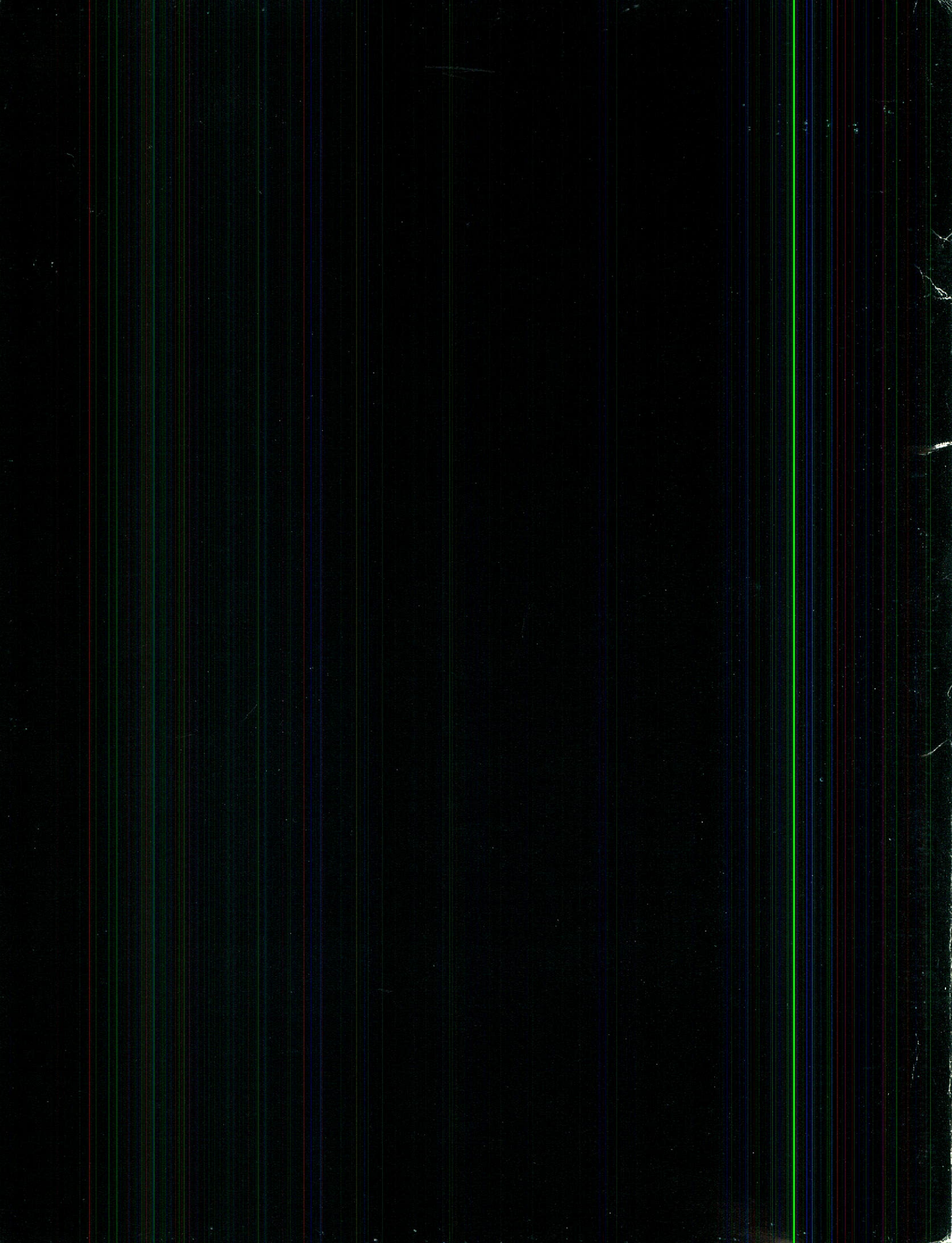


Challenge
and Response

Gulf Canada
Limited

Annual Report
1981



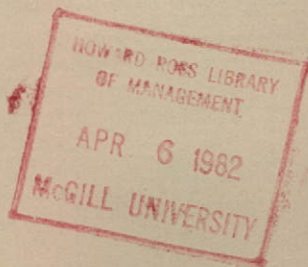


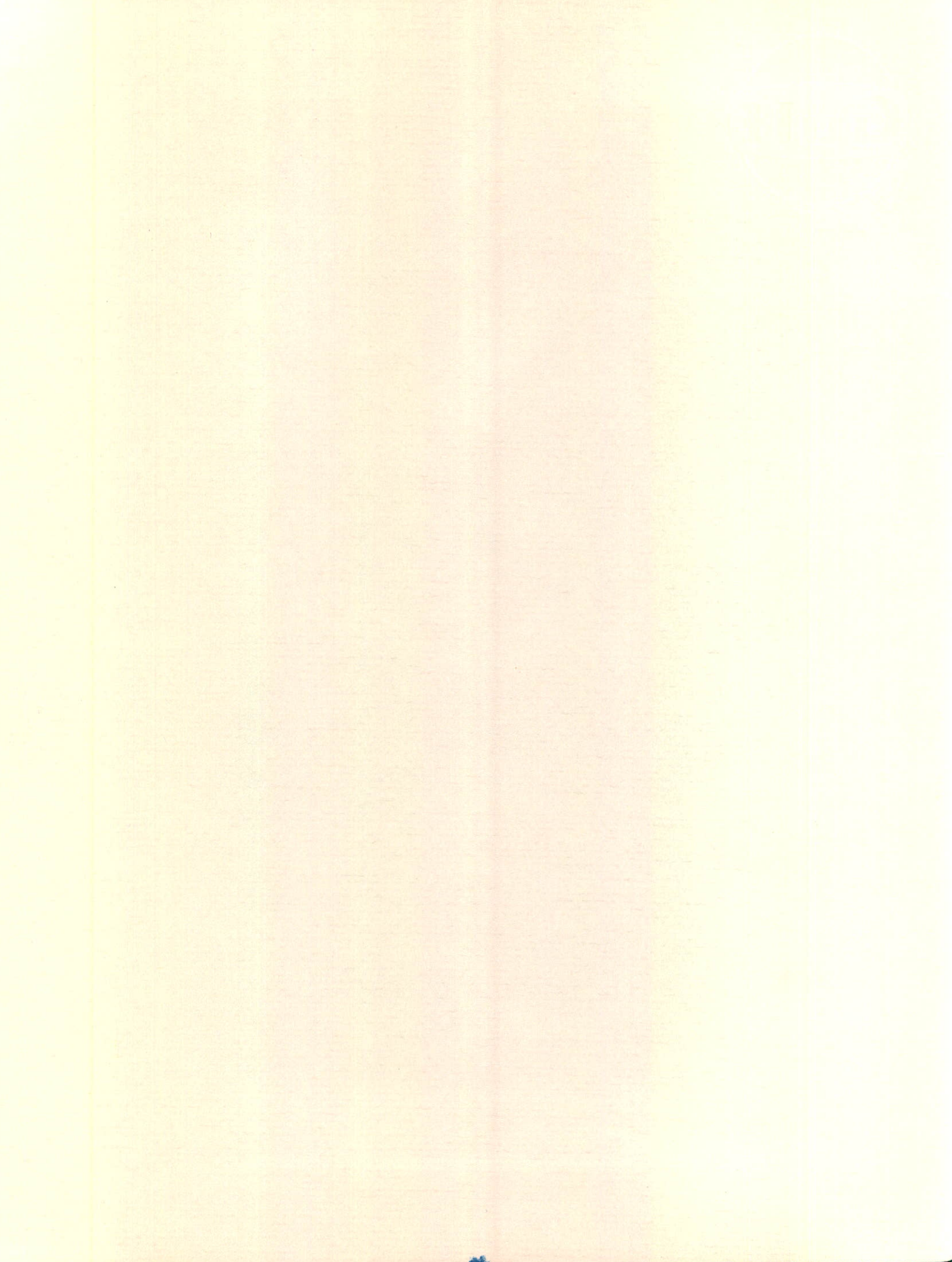
“Civilizations grow by responding successfully to challenges... and decline when the leaders fail to react creatively. Those who... have the vision and the courage to confront the challenge have it within their reach to participate in a greater act of creation.... The greater the challenge, the greater the stimulus....”

From “A Study of History”
Arnold J. Toynbee (1899-1975)

**Challenge
and Response**

**Gulf Canada
Limited**





Corporate Profile

Founded in 1906 by Albert L. Ellsworth, a 32-year-old Welland, Ontario, businessman, as The British American Oil Company Limited, Gulf Canada Limited has played a major role in the growth and development of Canada's energy industry. From an initial \$135,000 investment by eight original shareholders, it today has 40,600 shareholders, 11,367 employees and assets totalling \$4.5 billion. While 60 per cent of the company's common shares are held by Gulf Oil Corporation, Pittsburgh, Gulf Canada Limited operates as a separate entity with its own board of directors. A fully-integrated energy company with representation throughout Canada, Gulf Canada Limited consists of a management company and two operating divisions.

Gulf Canada Limited

The management company develops over-all corporate strategic direction, basic policies, performance objectives, controls and measurement criteria for the Gulf Canada companies. It handles the Corporate Planning and Development, Controller and Treasury functions, and provides services and co-ordination in such areas as Human Resources, Information Resources, Law, Public Affairs and Research and Development.

Gulf Canada Resources Inc.

Headquartered in Gulf Canada Square, Calgary, Canada's most energy-efficient building, this upstream subsidiary is responsible for a rapidly-expanding range of exploration and production activities. At year-end, GCRI had one of the best land positions in the industry, totalling 32 million gross hectares, and interests in 6,804 Canadian oil and gas wells capable of production. An experienced and successful participant in frontier exploration and oil sands development, GCRI has a nine per cent interest in the Syncrude project, and is a participant in the proposed Alsands and Sandalta projects. GCRI operates seven gas processing plants and has varying interests in 80 other gas plants and field gathering facilities. GCRI is also involved in uranium production and exploration for uranium and coal.

Gulf Canada Products Company

Responsible for manufacturing, marketing, chemicals and supply and transportation operations, the downstream division is headquartered in Toronto. With five refineries and two asphalt plants, it produces and markets a wide range of petroleum and petrochemical products. It accounts for 13 per cent of Canada's refining capacity and 15 per cent of its refined products sales; and also operates wholly-owned subsidiaries Superior Propane Limited, Commercial Alcohols Limited and Servico Limited. It holds a major interest in Pétromont Inc., a Quebec-based petrochemical consortium, and has varying interests in a number of the country's principal crude oil, natural gas and products pipelines.

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The Cover:
A major challenge facing Gulf Canada and partners in the 1980s will be development of offshore production in Canada's frontier areas.

Report to the Shareholders and Employees

Historian-philosopher Arnold Toynbee, in his monumental 12-volume "A Study of History," concluded from his examination of the world through the ages that the societies which survived and prospered were those that met the challenges they faced with the most creative responses.

As 1981 ended, Gulf Canada Limited, operating as a multinational affiliate in an industry environment heavily biased by government policy in favor of Canadian-owned and controlled companies, faced more challenges than ever before in the corporation's long history.

At the same time, Gulf Canada is tremendously strong and vital—with an outstanding hydrocarbon resource base, highly-experienced human resources in our coast-to-coast operations, as well as management depth, technological expertise and financial capability.

Seeing a parallel with Dr. Toynbee's conclusion, Gulf Canada's senior management believes that the extent to which our company will continue to grow and prosper in this new and more difficult environment will depend on how well we respond to the many challenges the Gulf Canada companies face, and how innovative our approaches and solutions are to each of them.

A review of the corporation's responses to its many challenges is therefore felt to be an appropriate theme for this year's Annual Report.

Throughout the 1970s, additions to conventional light and medium crude oil reserves in western Canada failed to match the rate at which these reserves were being produced, resulting in reduced reserves for both the industry and Gulf Canada, and eroding one of the corporation's most important sources of revenues and earnings.

While maintaining production levels and an active exploration program in the western provinces, Gulf Canada devoted roughly half its exploration spending to the frontiers, and successfully participated in major oil and gas discoveries off the east coast and in the Beaufort Sea.

The corporation also participated in the Syncrude Athabasca oil sands project, pursued pilot studies in other areas of the oil sands, and positioned itself for participation in future mining and in situ projects.

Looking to the major deposits of conventional heavy oil in western Saskatchewan and eastern Alberta, which may have to replace some of the declining conventional light oil production, the corporation began exploring actively on its own Crown and freehold acreage, farmed-in on acreage from another company, and entered a major exploration play in a three-way partnership with Saskoil and Petro-Canada. Large-scale reserves have been established, and Gulf Canada has taken a 20 per cent interest in a proposed upgrader which will have to be built before substantial additional markets will open up for heavy oil production.

Despite continuing additions to natural gas reserves by successful industry exploration, sales in recent years have been static due to lack of export markets and — in Gulf Canada's case — were declining due to reduced production from some older fields. This was another important source of income, so the corporation, in 1980, arranged for processing of gas from the Stolberg field — discovered more than 25 years ago. In addition, sales contracts were lined up and construction begun on the \$250-million Hanlan-Robb Gas Plant in which Gulf Canada will have a 37 per cent interest.



J.L. Stoik, President and Chief Executive Officer



J.C. Phillips, Chairman of The Board of Directors

Looking forward to the many challenging opportunities lying ahead for Gulf Canada if the federal government's objective of oil self-sufficiency by 1990 were to be achieved, the corporation was restructured in 1979, with Gulf Canada Limited as the management company, Gulf Canada Resources Inc. as the upstream subsidiary, and Gulf Canada Products Company as the downstream operating division.

With all aspects of the business becoming increasingly competitive, it was felt that response times would be quicker if the operating companies had the authority to act on their own opportunities and problems — within the framework of corporate objectives and strategies.

This organization has worked well operationally, and also improved Gulf Canada's ability to respond when government actions began to encroach increasingly on industry operations — greatly complicating the process of business planning.

In October, 1980, the National Energy Program introduced a price and fiscal regime that increased the federal government's share of energy revenues and promoted Canadianization of the oil and gas industry.

The major objectives of the NEP were reinforced by the revenue-sharing agreement reached between the federal and Alberta governments in September, 1981, which significantly affected pricing. It established a five-year tiered price schedule which benefits, in particular, frontier oil and conventional oil discovered since December 31, 1980. However, it will phase out the depletion allowance in the frontiers.

Industry cash flows and earnings, which were already suffering under the previous fiscal arrangement, will be further impacted by increased production taxes effective from January 1, 1982, and by measures contained in the November, 1981, federal budget, which raised taxes and lowered cash flows for most Canadian companies.

The reduced cash flow outlook led Gulf Canada Resources Inc. to make further use of farm-outs to share exploration costs and maintain a high level of activity. These included a farm-out of part of Gulf Canada's interests in approximately 365,000 hectares in western Canada, as well as a portion of Gulf Canada's interest in just over 22,000 hectares east of the Tarsiut discovery in the Beaufort Sea.

Gulf Canada accepts the federal requirement that individual frontier projects must have at least 50 per cent Canadian content before they will be permitted to go into production, but continues to oppose the 25 per cent back-in provision of Bill C-48, the Canada Oil and Gas Act.

In our downstream refined products business, demand is declining for some fuels — particularly gasoline, home heating and residual fuels — as consumers react to higher prices reflecting increased taxation. This decline resulted in some weakening of margins and profits — particularly in the fourth quarter.

Gulf Canada Products Company is responding by streamlining its organization and by establishing a Logistics Department to play a coordinating role in balancing and optimizing operations — including selection and purchase of crude oils to best meet product requirements, as well as responsibility for primary distribution and inventory control.

Strategically, the decision has been made to concentrate investments on the relatively healthy western Canada fuels market and on value-

Challenge:

Operate profitably and contribute strongly to national energy objectives despite higher taxes and a much more difficult business environment.

Response:

Endeavor to maintain planned investments to make the most of Gulf Canada's attractive opportunities in the 1980s.

added opportunities in specialty products nationally. Compared with an 11 per cent share of the depressed eastern Canada market, Gulf Canada enjoys a 20 per cent market share in the western provinces. The 55 per cent expansion of capacity under construction at Edmonton Refinery will reinforce this position. Distribution of Gulf products in Manitoba was improved by the opening of a new warehouse in Winnipeg.

In eastern Canada, where the main problem is a surplus of residual fuel, Gulf Canada has responded by mothballing Point Tupper Refinery and by leading an industry group evaluating, for an early decision, the feasibility of constructing an upgrading plant at Montreal to convert residual fuel into more valuable light products.

In one specialty market, Gulf Canada's exclusive HydroTreated lubricants plant at Clarkson Refinery has enabled the company to increase its share of the national market to 19 per cent, making it the second largest supplier. This plant's annual output capability was increased during 1981.

In petrochemicals, Gulf Canada is the country's only manufacturer of the nylon intermediate cyclohexane, and the only eastern Canada producer of phenol; and production of these aromatics is keeping pace with market demand. The company is contemplating its first move into the booming western Canada chemicals business through construction of a world-scale benzene plant at Edmonton Refinery. Meanwhile, the 1980 sale of the ethylene plant at Varennes, Quebec, to Pétromont Inc., will give us a one-third interest in that consortium, which is seeking more economical feedstocks as a basis for possible future expansion.

During 1981, the Bertrand Report on the State of Competition in the Canadian Petroleum Industry accused the major oil companies of restricting competition from independent retailers, which allegedly resulted in overcharging of consumers.

In hearings conducted across the country by the Restrictive Trade Practices Commission, representatives of Gulf Canada Products Company vigorously defended the company's business practices as both legal and ethical. But corporate spokesmen expressed concern that the government might seek to introduce revisions to the Combines Investigation Act, based on the Bertrand Report, before the Commission had the opportunity to report its findings.

Gulf Canada's communications with governments and the general public were stepped up during the year to achieve a better understanding of the economic importance of achieving oil self-sufficiency, and the issues that must be resolved for significant progress to be made toward that objective.

With major oil fields indicated at Hibernia off the east coast and in the Beaufort Sea, Gulf Canada's biggest challenge during the 1980s will be to develop — along with our partners — production facilities in these frontier areas.

Various production systems have been evaluated for Hibernia, but we now must await the establishment of an appropriate fiscal regime. To fully evaluate the many promising structures on the 600,000 hectares of Gulf Canada-operated lands in the Beaufort Sea, the company has committed the largest single investment in its history — \$674 million —

for a new-generation drilling system involving two massive drilling units and four ice-breaking support vessels.

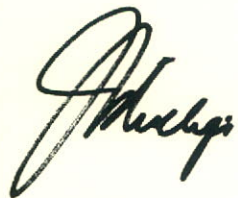
In spite of the reduced cash flows resulting from increased taxation in 1981 and 1982, management has concluded that Gulf Canada must endeavor to sustain a high level of spending in order to make the most of the many attractive opportunities available in the 1980s.

Over the next five years, capital and exploration spending of \$7 billion is projected, beginning with \$1 billion in 1982 — a 28 per cent increase from the 1981 level. During 1981, Gulf Canada raised close to \$500 million in three separate debt issues. However, attainment of long-term objectives will require continued aggressive utilization of the corporation's financial capabilities.

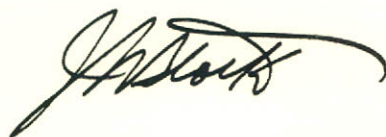
Gulf Canada's 1981 net earnings of \$299 million amounted to a decline of 21 per cent from the \$380 million reported for 1980. However, traditional accounting methods are inadequate to reflect the erosion of earnings in real terms that has been occurring as a result of inflation — particularly in the last two years. A commentary on page 37 of this report indicates that, adjusted for inflation, the record 1980 earnings would shrink to only \$91 million, while reported 1981 earnings would represent a loss of \$183 million.

Clearly, tax and revenue-sharing policies must permit oil companies to earn substantially higher profits if their ability to invest in the future of this country is to be preserved. We believe that our industry, with its many giant undertakings, is the only segment of the economy with the potential to lead Canada out of the present depressed economic conditions.

On behalf of the Board,



J.C. Phillips,
Chairman of the Board



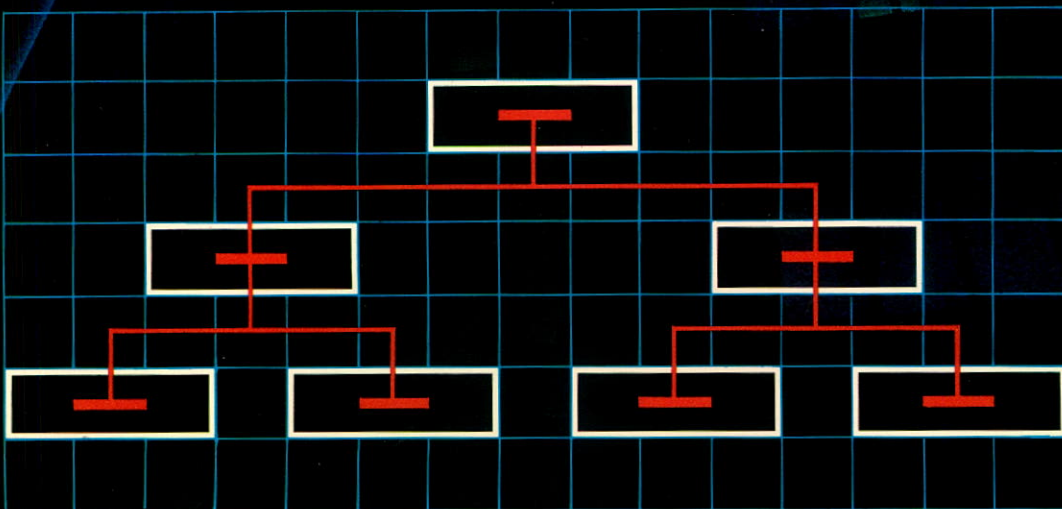
J.L. Stoik,
President and Chief Executive Officer

Toronto, Ontario, March 22, 1982

**Financial and
Operating
Highlights**

Financial <i>(millions of dollars)</i>	1981	1980	1979
Net revenues	4,697	3,835	2,853
Net earnings	299	380	288
Dividends declared	100	93	68
Government royalties and taxes	2,040	1,302	936
Funds from operations	520	542	410
Capital and exploration expenditures	782	572	410
Total assets	4,468	3,692	3,295
Long-term debt	751	315	333
Shareholders' equity	2,125	1,926	1,639
Return on shareholders' equity	14.8%	21.3%	18.8%
Return on capital employed	10.4%	15.3%	13.3%
Per Share Data <i>(dollars per share)</i>			
Net earnings	1.31	1.67	1.27
Dividends declared	0.44	0.41	0.30
Funds from operations	2.29	2.38	1.80
Shareholders' equity	9.34	8.47	7.20
Price/earnings ratio	14	14	18
Market Value of Common Shares			
Toronto Stock Exchange — High	31 $\frac{1}{8}$	38 $\frac{5}{8}$	25
— Low	16 $\frac{6}{8}$	19 $\frac{7}{8}$	7 $\frac{1}{8}$
— Close	18 $\frac{3}{8}$	23 $\frac{3}{8}$	22 $\frac{3}{8}$
Shares traded <i>(millions)</i>	45.3	69.6	50.0
Operating <i>(thousands of cubic metres per day)</i>			
Gross production			
— Conventional crude oil and natural gas liquids	18.0	20.6	21.5
— Synthetic crude oil	1.7	1.7	1.1
— Natural gas produced and sold <i>(millions)</i>	8.4	8.9	11.0
Crude oil processed by and for the Corporation	43.5	46.1	50.6
Sales			
— Refined products	36.2	38.0	38.1
— Petrochemicals <i>(millions of kilograms)</i>	.6	1.3	1.4
Net Proved Reserves <i>(millions of cubic metres)</i>			
— Conventional crude oil and natural gas liquids	33.4	35.6	38.6
— Synthetic crude oil	10.7	16.4	17.0
— Natural gas <i>(billions)</i>	48.8	50.4	51.9

Gulf Canada Limited



Strategic direction and objectives for the Gulf Canada organization are established by the management company, Gulf Canada Limited, at corporate headquarters, 130 Adelaide Street W., in Toronto's financial district.

Organization

The evolution of Gulf Canada Limited as a management company continues, with several major executive changes and responsibility realignments.

During 1981 three vice-presidents retired and their duties were assumed by other officers and departmental directors. Retiring were R.C. Beal, Vice-President — New Business Development; R.E. Harris, Vice-President — Human Resources, and C.G. Walker, Vice-President — Public Affairs. They contributed greatly to the growth and development of the corporation during their long years of service, and entered retirement with best wishes for continued health and happiness.

Early in 1982, following the return of Gulf Canada Vice-President and Treasurer W.H. Burkhiser to

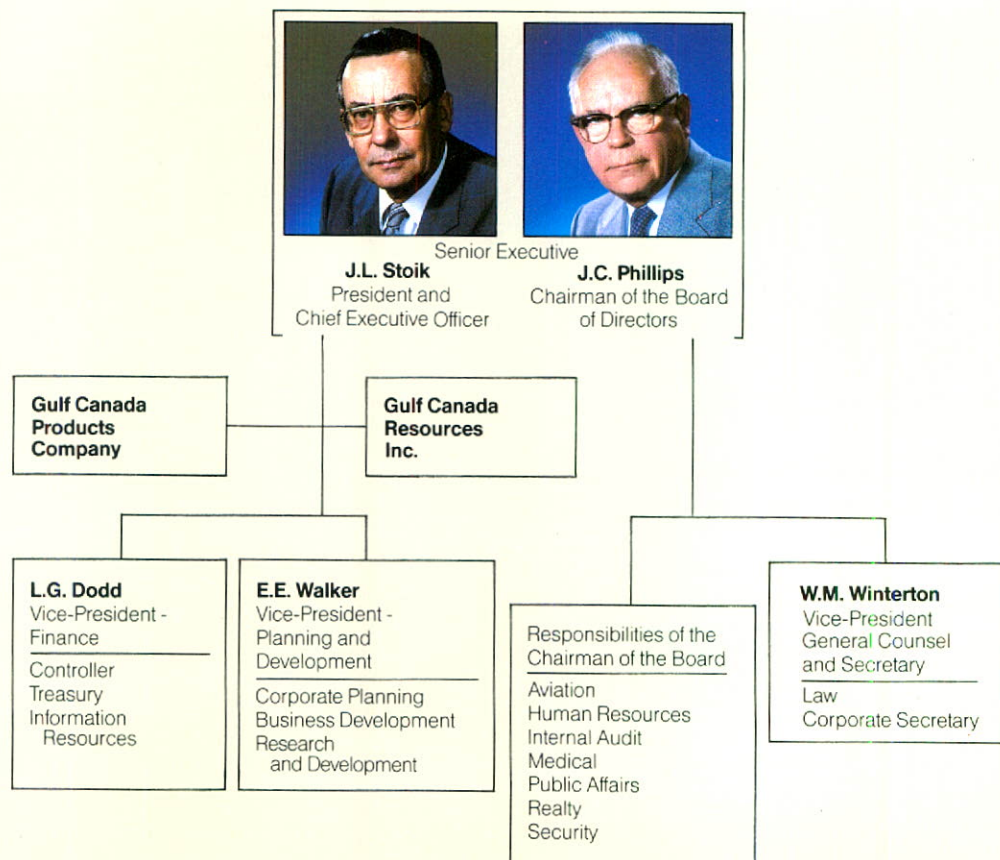
Gulf Oil Corporation, Pittsburgh, as Deputy Treasurer, L.G. Dodd, previously Vice-President and Controller, was appointed Vice-President — Finance. In addition to continuing to be in charge of the Controller departments, he now has over-all responsibility for Treasury and Information Resources.

Also appointed officers of the corporation at the February meeting of the Board of Directors were A.R. Sello as Controller and J.R. Tysall as Treasurer, both of whom report to Mr. Dodd. Mr. Sello was formerly Director — Financial Planning and Analysis and Mr. Tysall was Director — Treasury for two years before serving most recently as Manager — Finance for the Carmont Inc. residual fuel upgrader project which Gulf Canada Products Company is leading.

There were no vice-presidential changes in either Gulf Canada Resources Inc. or Gulf Canada Products Company during 1981, but some new functions were created and some responsibilities reassigned within the existing officer groups as indicated in the accompanying organization charts.

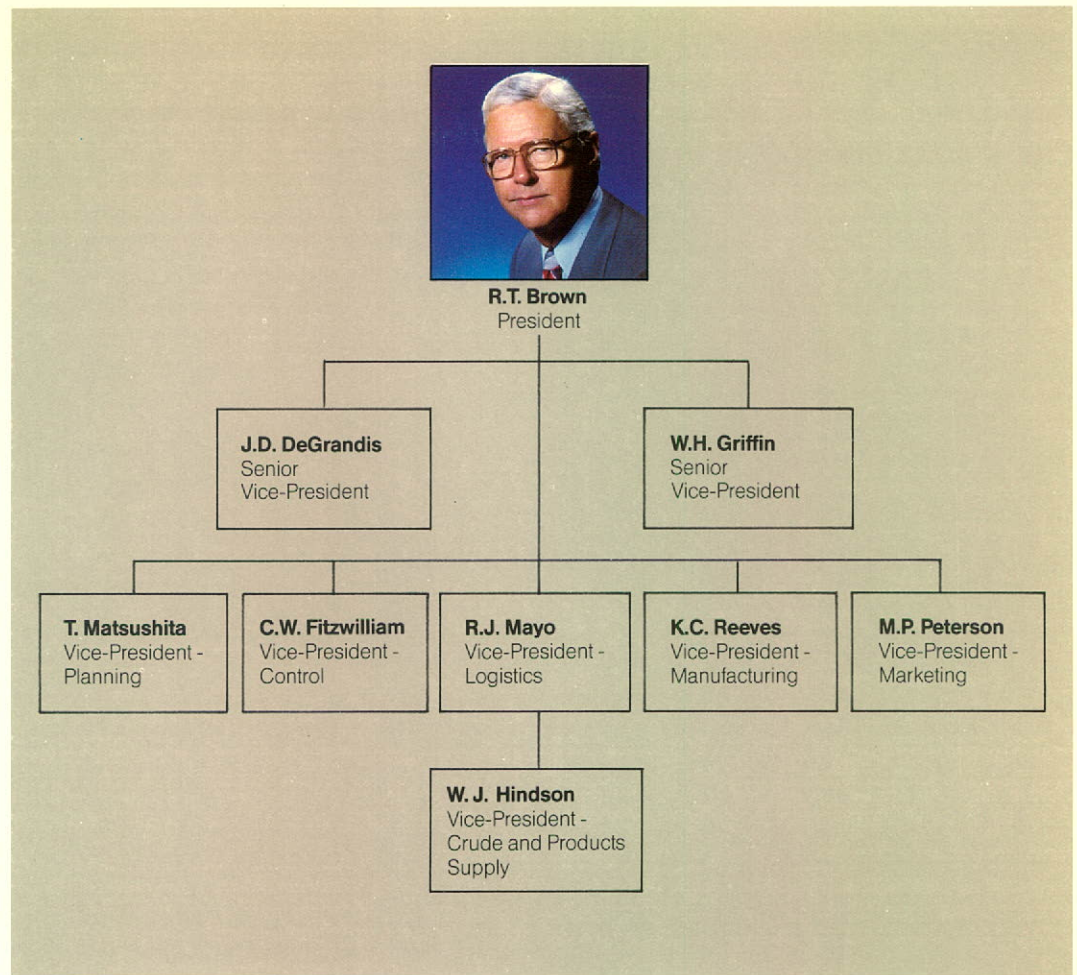
A realignment of vice-presidential responsibilities in Gulf Canada Resources Inc. during the year saw Senior Vice-President R.H. Carlyle assume greater executive responsibility for public and government communications on behalf of GCRI in addition to his over-all direction of the company's exploration efforts. As Vice-Chairman of the Canadian Petroleum Association he will also be a major spokesman for the industry.

Gulf Canada Limited

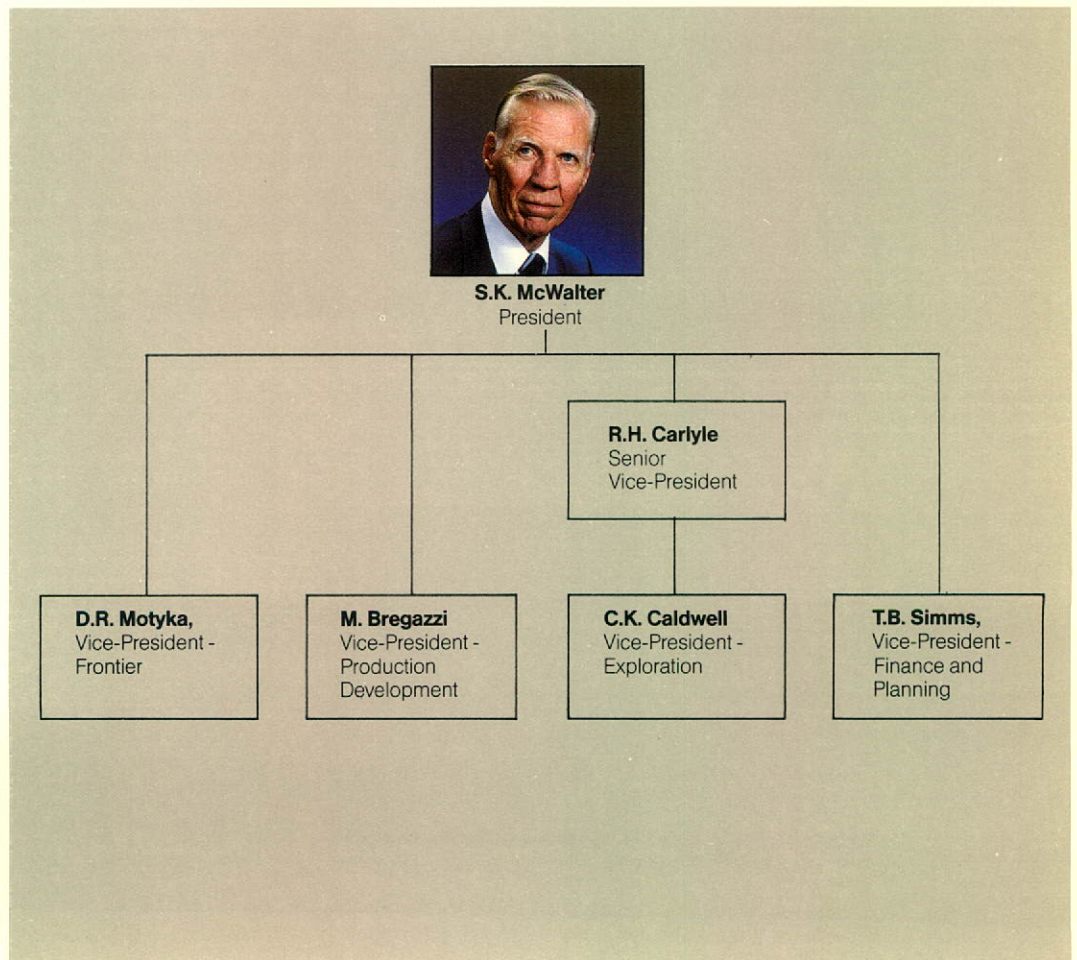


The four senior officers whose pictures appear on these pages comprise the Executive Council of Gulf Canada Limited.

**Gulf Canada
Products Company**



**Gulf Canada
Resources Inc.**



Other Activities

Challenge:
Ensure that Gulf Canada will have the highly-skilled personnel to handle the energy projects of the future.

Response:
Place greater emphasis on recruitment of exceptional people, training programs and career-path planning.

Right: Part of Gulf Canada's future manpower requirements will be met by 247 university graduates recruited in 1981, many of whom toured Clarkson Refinery during orientation program.

Human Resources

To meet the challenge of attracting to the organization highly desirable candidates with the skills, initiative and flexibility needed for current operations and future projects, a new approach to recruitment advertising began to build a public image of Gulf Canada as an employer of exceptional people.

Continuing focus on management development included greater use of career-path planning, and an extensive in-house program for the development of managerial skills. Employees interested in taking job-related educational courses on an evening or extension basis continued to receive financial support.

Placing greater emphasis on the excellence of individual performance, Gulf Canada introduced the first phase of a single-increase salary system. By linking compensation closely to performance, this system is expected to provide greater incentive for achievement.

During 1981, the International Year of Disabled Persons, Gulf Canada officially recognized the pool of talent represented by this group of Canadians by revising its Statement of Business Principles to specifically extend equal employment opportunity to the disabled.

Accelerating exploration and production activities in remote and frontier areas have been supported by local initiatives, including native employment and community relations programs.

Extensive revisions were made to the communications program used to

update employees on their benefits package, and numerous presentations were made. During the year, Gulf Canada made its Pension Plan non-contributory, and made cost-of-living adjustments for pensioners and recipients of Long-term Disability payments.

All labor contracts up for renewal in 1981 were negotiated in a spirit of co-operation and were concluded satisfactorily.

Research and Development

The Gulf Canada companies engaged in a wide range of research and development activities during 1981.

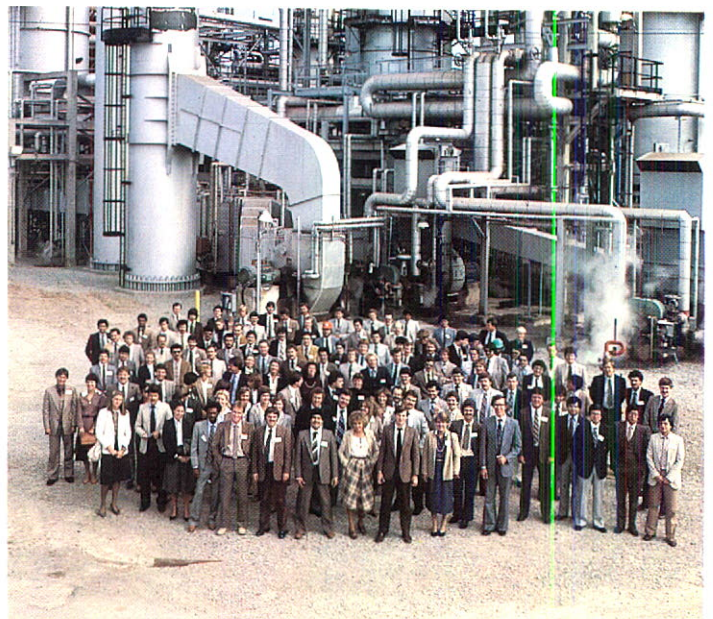
Almost four-fifths of total spending was for pilot and demonstration projects in western Canada aimed at developing improved methods for recovering conventional heavy oil and oil from the oil sands deposits. The balance was spent by the corporation's Sheridan Park Research and Development Centre near Toronto.

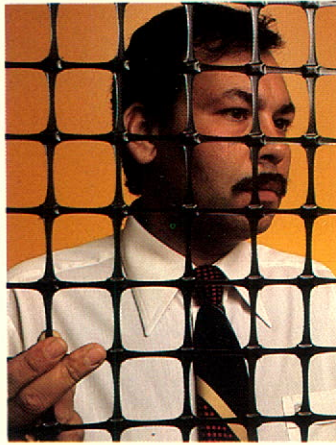
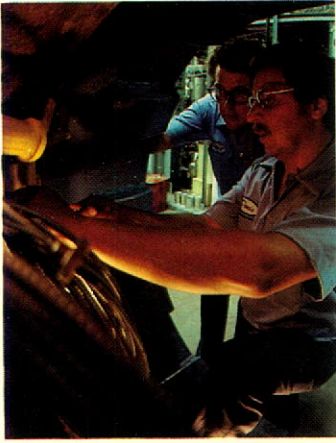
With available funds now reduced as a result of the National Energy Program and the revenue-

sharing agreements, Gulf Canada is forced to take a more focused approach to research and development and is concentrating on projects considered essential to the success of corporate business plans and strategies.

The corporation's ability to evaluate the potential of in situ oil sands and heavy oil recovery processes was improved by the development of mathematical models and process models to simulate various recovery techniques. Potential adverse effects of steam on reservoirs were identified and preventative measures defined. Start-up of a physical modelling facility enabled 20 years of reservoir performance to be simulated experimentally in less than a day. Process models were also constructed for the study of fractured reservoirs.

Gulf Canada Resources Inc. conducted a major field pilot study near Fort McMurray, Alberta, to evaluate a new oil sands extraction process. Assisting in this project was a mobile laboratory equipped and manned by Research and Develop-





Upper: At Gulf Canada's Sheridan Park, Ontario, Research and Development Centre, Denis Guimond, Derek Moon work on one of many projects that seek improved methods for recovering heavy oil and oil trapped in Canada's vast oil sands deposits.

Lower: Research engineer Nabil Kamel of Research and Development staff examines sample of tough polymer plastic Tensar reinforcing material on which Gulf Canada has obtained option for joint development of the North American market.

ment personnel from Ontario. This unit will be used for conducting on-site extraction studies at other mineable oil sands properties.

To meet the challenge of developing processes to convert heavy oils to lighter and more useful synthetic crude oils, a unique hydrogen-addition upgrading process was developed and patented by Gulf Canada during the year. It operates at significantly lower pressures than other upgrading processes and does not require the use of an expensive catalyst. Pilot plant studies are under way to further refine this process and to provide data for design of a demonstration plant.

In-house laboratory studies also contributed to the selection of superior miscible fluids for injection in enhanced recovery projects for several light oil reservoirs.

New-product challenges met during the year included development of a new universal crankcase oil *Super Plus Arctic OW-30* for good performance in extreme cold weather environments.

Also developed was a new automatic transmission fluid which was one of the first in the world to be approved by General Motors for use in all GM car, truck, bus and off-highway equipment transmissions.

Business Development

Gulf Canada Limited has entered into an agreement with Netlon Limited of Blackburn, England which provides Gulf an option to acquire rights to produce and market Tensar products in North America in partner-

ship with Netlon. Tensar materials are unique new high-strength plastic mesh structures devised by Netlon for use in a variety of industrial reinforcement and containment applications.

The agreement provides a one-year option period during which Gulf Canada will undertake the market development and evaluation, plant engineering design, FIRA review and economic analyses necessary to reach a final decision on exploitation of this technology in North America.

Safety, Health and Environment

Progress was made in the loss management area, with fewer lost-time injuries than in each of the previous two years. Twenty-three units earned President's Safety Awards, completing a year without a disabling injury. One unit, Rimbey Gas Plant, recorded its thirteenth consecutive injury-free year.

The Medical Department, which is concerned with the occupational health of Gulf Canada employees, assumed direct control of the three regional health centres in Montreal, Toronto and Calgary. Resources and programs were expanded, a Western Region Medical Department created, and corporate guidelines established for the use of video display terminals.

The Burrard Clean Oil Spill Co-operative, of which Gulf Canada was a founding member in 1976, received the British Columbia Environment Minister's Award for service to the B.C. environment in recognition of the equipment and

training it has provided for response to petroleum spills in Vancouver Harbor and Burrard Inlet.

Public Affairs

Public opinion research indicates that Canadians want more information to help in understanding the complex issues affecting the country's energy future. Responding to this need, Gulf Canada significantly increased communications with various audiences during 1981.

The most visible activity in this communications program was a series of corporate advertising messages on energy subjects that appeared in most Canadian daily newspapers.

At the same time, the corporation continued to demonstrate a high level of social responsibility.

Contributions to worthy causes during 1981 reached a record of almost \$2.9 million in support of health and welfare services, educational institutions and programs, community activities and youth projects, and cultural organizations across Canada. The company responded to record numbers of university and hospital appeals as these organizations turned more to the private sector in the face of provincial and federal government cut-backs.

Support for the International Year of Disabled Persons was continued in many areas following the special donation, at the end of 1980, of \$128,000 for a fleet of 16 cars to the Multiple Sclerosis Society of Canada.

A special grant of more than \$155,000 to the Canadian Lung Associa-



Upper: Largest of 1981 corporate donations totalling \$2.9 million, was \$155,000 grant to Canadian Lung Association for program to aid asthmatic children.

Lower: Continuing support for National Youth Orchestra was more than monetary. Paul Daemen, administrative services manager, Varennes Petrochemical Plant, served as organization's president.

tion will help to develop and distribute an instructional record/tape and booklet to assist children with asthmatic conditions. This Breathe-Free program could provide help to 30,000 children in the six-to twelve-year-old age group.

Cultural donations in all parts of Canada included sponsorship of the Canadian Opera Company's production of *A Masked Ball*, and the Stratford Festival's *The Rivals*. Symphony orchestras and theatre groups were supported in all provinces.

A total of 84 university students benefitted from Gulf Canada's Fellowship/Scholarship/Bursary Program in 1981. Ten post-graduate students received \$7,500 fellowships, of which four were renewals. Under the undergraduate program for dependants of Gulf Canada employees, 15 students received four-year scholarships of \$1,500 annually, and 20 were awarded one-time bursaries of \$500.

Challenge: Communicate Key Energy Issues

Government policies affecting the oil industry ultimately reflect the perceptions that elected representatives and civil servants have of public concerns, desires and preferences.

Surveys conducted by Gulf Canada indicated that a high percentage of Canadians were unaware that the country is not self-sufficient in oil; nor did they comprehend the economic drain for imported oil to make up the shortfall. It was not generally understood that attainment of self-sufficiency would require a total effort by all companies in the industry, and foreign as well as domestic capital. Also, Gulf Canada's contributions to future energy security were not widely known. The oil industry was not particularly popular, but respondents were interested in knowing the facts.

Response: Highly-Informative Ad Series

After months of planning, Gulf Canada in May launched a major series of highly-informative corporate advertisements in opinion-leading magazines and key newspapers across the country. The messages, about different aspects of the company's energy efforts, reached an estimated 80-90 per cent of adult Canadians an average of 20 times during the year.

The ads, dealing with such subjects as revenue-sharing, exploration, frontier development, energy conservation, refining and marketing, were designed to improve public understanding of the issues that must be resolved if the benefits of oil self-sufficiency are to be realized.

The response was immediate and very encouraging. Thousands of letters and phone calls were received — almost 80 per cent favorable, expressing appreciation for the information provided and/or agreement with the corporate views expressed. The series is continuing in 1982.

"They say oil is found in the minds of men — and Gulf Canada believes it."

Keith Caldwell
Vice President Exploration, Gulf Canada Resources Inc.

Over the past two decades Gulf Canada and other members of the industry, spent billions of dollars on exploration programs that only recently resulted in significant discoveries in the Beaufort Sea, the Arctic Islands and off the coast of Newfoundland. But when we first started making the money the possibility of oil in these areas existed only in the minds of our earth scientists.

Searching for and discovering oil is an act of faith supported by knowledge, instinct, money and a little bit of luck. The more people we have providing the faith, knowledge and instinct — not to mention money — the sooner Canada can reach oil self-sufficiency.

There are complex techniques for locating the underground oil reserves that might contain oil. But nobody has to date to test a theory where to apply these techniques in the first place.

One way of looking through the earth's interior is to take seismic readings. To do this geophysicists employ charges as "earthquake" waves that bounce



Keith Caldwell, Vice President Exploration, Gulf Canada Resources Inc., says he has confidence in other people. "Man's ability to find oil is not just a matter of money," he says. "It's a matter of faith."

Huge risks

Oil wells are a million dollars or more to drill to the bottom. To drill a single hole at sea is like building a bridge across the ocean before they find a single drop of oil. Gulf Canada and other companies were among the first to drill in the deep. These wells cost millions of dollars. Some of the best money was made on the best projects of people experienced in the science of discovery.



How many of us know what is going on in the Beaufort Sea? The Beaufort Sea is the largest body of water in the Arctic region. It is rich in oil and gas. It is also rich in fish and other marine life.

The cost of drilling and exploration is so high that the bulk of the money spent in Canada's oil industry goes to buy foreign-made equipment. That's why we need to bring more money into the country.

When we import oil, we export money. Gulf Canada is not just a company that exports money. We are a company that exports technology. We are a company that exports jobs. We are a company that exports hope.

Corporate ad series featuring Gulf Canada's contributions to national energy goals added to public's understanding of major petroleum industry issues.

**Gulf Canada
Resources Inc.**



Gulf Canada's innovative \$674-million Beaufort Sea Drilling System, largest single investment in the corporation's history, will extend current short drilling season in this highly-prospective area. Conical Drilling Unit (l), is scheduled for delivery in 1983. Mobile Arctic Caisson (r) for shallower water, will follow in 1984.

**Financial and
Operating Summary**

FINANCIAL <i>(millions of dollars)</i>	1981	1980
Net segment earnings after taxes	\$ 82	\$ 192
Capital and exploration expenditures		
Oil and gas		
Conventional	117	97
Syn crude	15	12
Other	49	50
Exploration	381	287
Minerals and coal	12	14
Total	\$ 574	\$ 460
Capital employed at year-end	\$1,174	\$ 889
Return on average capital employed	8.0%	23.5%
OPERATING <i>(thousands of cubic metres per day)</i>		
Gross production		
Crude oil and natural gas liquids	18.0	20.6
Synthetic crude oil	1.7	1.7
Natural gas produced and sold <i>(millions)</i>	8.4	8.9

Upper: At year-end the Nautilus well was drilling on a separate structure ten km northeast of Hibernia field.

Lower: Hebron well, 37 km south-east of Hibernia field, flowed oil and gas from three separate formations.



Capital and exploration spending by Gulf Canada Resources Inc. (GCRI) increased by over \$100 million in 1981 to a record \$574 million. About 70 per cent of the increase reflects first-year commitments toward the cost of the \$674-million Beaufort Sea Drilling System, the first unit of which will become operational in 1983. The balance of the increase was due to higher spending in Canada's frontier regions and construction of the company-operated Hanlan-Robb gas processing plant which began in June. Spending levels in other sectors were generally comparable to 1980, except for reductions in western Canada exploration and mineable oil sands activities.

Natural resource earnings of \$82 million were

\$110 million lower than in 1980, a reduction of 57 per cent. While higher prices were a positive factor, unfavorable changes by government in the fiscal regimes had a negative impact. Most significant were the new Petroleum and Gas Revenue Tax and the full-year loss of the Frontier Exploration Allowance, which expired in early 1980. Also, production of conventional oil and natural gas was lower due to reduced demand and oil production cutbacks instituted by the Alberta government. Meanwhile, operating expenses continued to rise, reflecting higher production costs related to older producing fields, and inflation.

Exploration Activity

Record exploration expenditures of \$381 million in 1981 were up from \$287 million in 1980. Over 60

per cent of expenditures were in the frontiers, where successful wildcat and delineation wells continue to confirm the potential of these regions.

In western Canada, exploration activities were highlighted by a stronger emphasis on exploration for "new oil" which will receive the New Oil Reference Price which is tied to the international oil price. Significant reserve additions resulted from drilling on GCRI-interest heavy oil lands in western Saskatchewan.

Land

The company maintained its well-balanced inventory of land holdings in 1981. Interests in over 32 million gross hectares provide broad representation in the most promising frontier areas and in conventional and oil sands areas of western Canada. Maps showing the major frontier land holdings are provided on pages 16 and 17.

Frontiers

EAST COAST OFFSHORE
GCRI and partners used three rigs in 1981 to evaluate the 212,000-hectare Hibernia block and explore the adjacent 2.4 million hectares on the Grand Banks.

Three delineation wells were completed at Hibernia where the company has a 25 per cent interest, and two confirmed reserves which add confidence to our estimate of 288 million cubic metres of recoverable light crude oil reserves in the Hibernia field. At year-end, the J-34 delineation well was drilling at the south end of the structure.

Other exploratory drilling on the Grand Banks successfully identified additional new oil accumulations. GCRI has a 25 per cent interest in the Hebron wildcat, located 37 km southeast of Hibernia, which flowed oil from formations equivalent to oil-bearing zones in the Hibernia field. The 18.75 per cent company-interest South Tempest wildcat, on a separate structure about 80 km northeast of the Hibernia field, flowed oil from sands that correlate to some of Hibernia's oil-bearing formations. Additional exploration will be required to assess the potential of these two encouraging wells.

At year-end, exploratory drilling was under way on two new structures: West Flying Foam, 35 km north of Hibernia, where GCRI has an 18.75 per cent interest; and Nautilus, ten km northeast of Hibernia, where GCRI has a 25 per cent interest.

LABRADOR SHELF

On the Labrador Shelf, operations were carried out at five locations with a three-ship program conducted by the Labrador Group, in which GCRI has a 23 per cent interest. Tests confirmed gas finds at Bjarni and North Bjarni, separate structures eight km apart, although the North Bjarni well was not fully evaluated before the drilling season ended. The North Leif well, although abandoned, recovered some oil and is encouraging for future exploration. Two additional wildcat wells, Rut and Corte Real, were started.

BEAUFORT SEA

GCRI participated in operations at six Beaufort Sea locations in 1981, evaluating previous discoveries and testing new structures.

Oil flows from the Kopanoar delineation well and the Koakoak exploratory well indicate the probability of major reserves on GCRI-interest Beaufort Sea lands. GCRI has a 25 per cent interest in both discoveries.

Significant oil flows also occurred at the Issungnak delineation well where GCRI has a 29 per cent interest. The North Issungnak exploratory well, on a separate structure ten km northwest of the Issungnak oil discovery, did not encounter hydrocarbons.

The Tarsiut N-44 delineation well, operated by GCRI six km east of the discovery, was spudded from an artificial island at year-end. The Uviluk island was partially built and will be completed and the well spudded in 1982. The company will have a 40.5 per cent interest in the Tarsiut well and a 14 per cent interest in Uviluk.

ARCTIC ISLANDS

GCRI and partners participated in three Arctic Island wells during the 1980-81 winter season. Cisco and Skate tested significant amounts of oil, while the third, Maclean, found gas with a small recovery of oil.

Plans for the 1981-82 winter season include delineation wells on the Whitefish and Cisco structures, plus wildcat wells on two new structures, Cape Mamen and Sculpin.

Western Canada

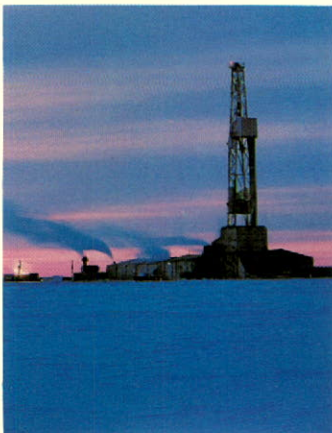
The company spent \$112 million on western Canada exploration in 1981, a \$42-million decrease from 1980. A broadly-based program concentrated on the search for conventional light oil and gas in Alberta, and conventional heavy oil in Saskatchewan.

Producer returns from conventional oil production were adversely affected by the National Energy Program of October, 1980. However, under the September 1, 1981, agreement between the federal and Alberta governments on petroleum pricing and taxation, oil discoveries drilled after December 31, 1980, will receive the New Oil Reference Price. The company's search for new-oil prospects in Alberta resulted in two oil discoveries and significant land acquisitions in oil-prone areas.

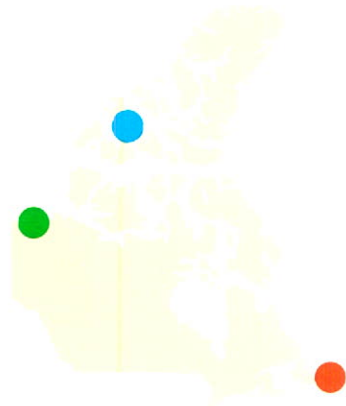
Gas was discovered in 17 of 37 exploratory wells the company drilled in Alberta and British Columbia in 1981. Most of the drilling and discoveries were in areas near gas plants with access to available markets.

A joint participation agreement was concluded with Alberta Energy Company. By providing 75 per cent of the funds for a \$133-million exploration program, AEC will earn 30 per cent of GCRI's interests in approximately 364,000 net hectares in Alberta and northeastern British Columbia. During the three-year term of the agreement, it is expected approximately 50 net wells will be drilled, raising GCRI's light oil and gas exploration in western Canada to 1980 levels.

Interest in the Arctic Islands heightened with discovery of oil at two locations during 1981. Upper: Cisco well was drilled 32 km northeast of earlier major Whitefish gas discovery. Lower: Skate well, north of Loughheed Island, also flowed oil and natural gas.



Frontier Exploration



Legend

- Gulf-interest acreage
- Oil
- Gas
- Drilling

Exploration and evaluation of conventional heavy oil prospects continued on the company's extensive land base in Saskatchewan. GCRI, an equal partner with Saskoil and Petro-Canada in the Saskatchewan Heavy Oil Project, is also active through additional farm-ins and new acquisitions of both freehold and Crown lands. During 1981, of 111 wildcat wells drilled, 41 found oil and ten found gas.

Minerals and coal

Gulf has a 5.1 per cent interest in the Rabbit Lake, Saskatchewan, uranium mine which produced 1,391 tonnes of uranium oxide in 1981. Gulf also has a ten per cent interest in adjacent properties which include defined ore bodies, and a

Land Inventory Summary 1981 (Millions of hectares)

Petroleum and Natural Gas
 Western Canada
 Frontier
 Beaufort Sea
 Yukon and NWT
 Mackenzie Delta
 Arctic Islands
 East Coast
 Frontier Option

Total Frontier

Oil Sands
 Alberta

Total Petroleum/Natural Gas/Oil Sands

Coal
 Minerals

Total

Gross

Net

3.1

1.8

1.0

0.4

0.9

0.5

0.4

0.3

8.3

1.5

17.7

5.5

0.5

0.1

28.8

8.3

0.3

0.2

32.2

10.3

0.5

0.5

0.3

0.1

33.0

10.9

50 per cent interest in certain other mineral exploration activities undertaken by Gulf Minerals Canada Limited.

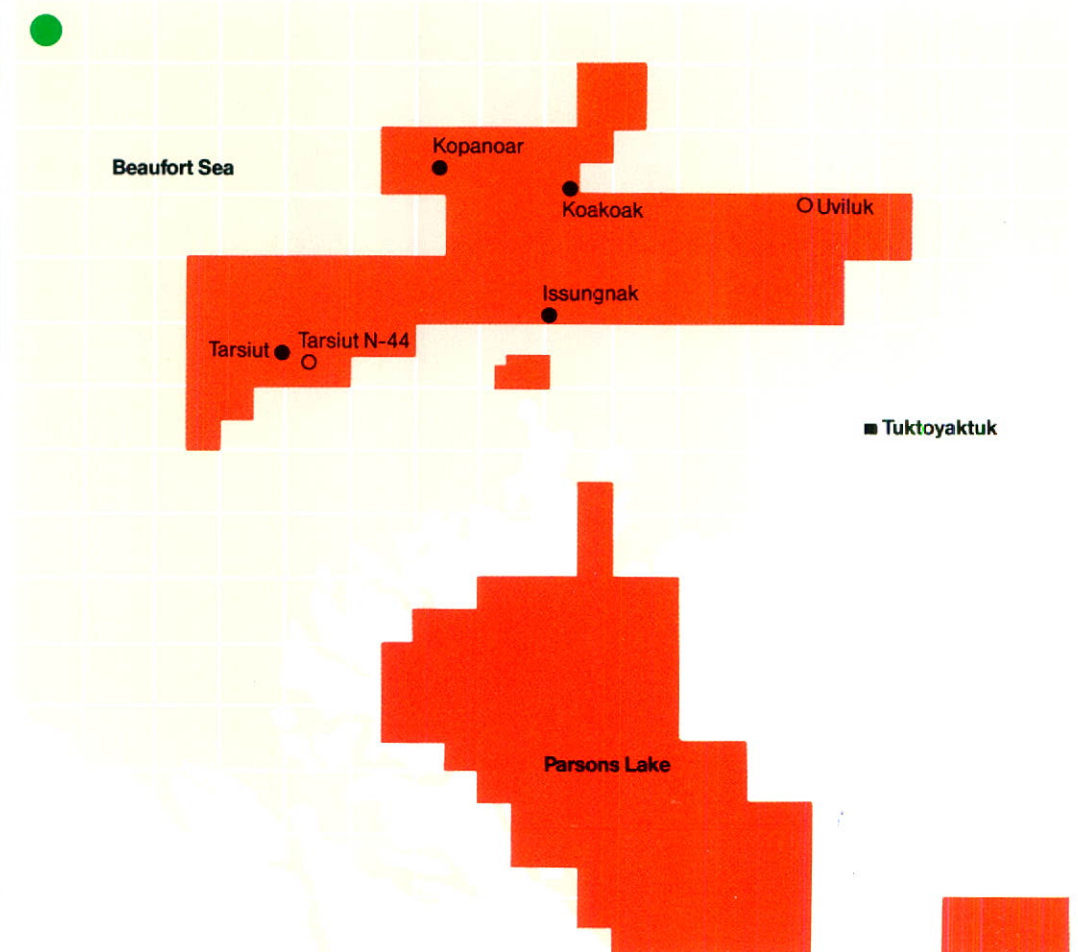
GCRI continues to hold significant coal rights in Alberta and British

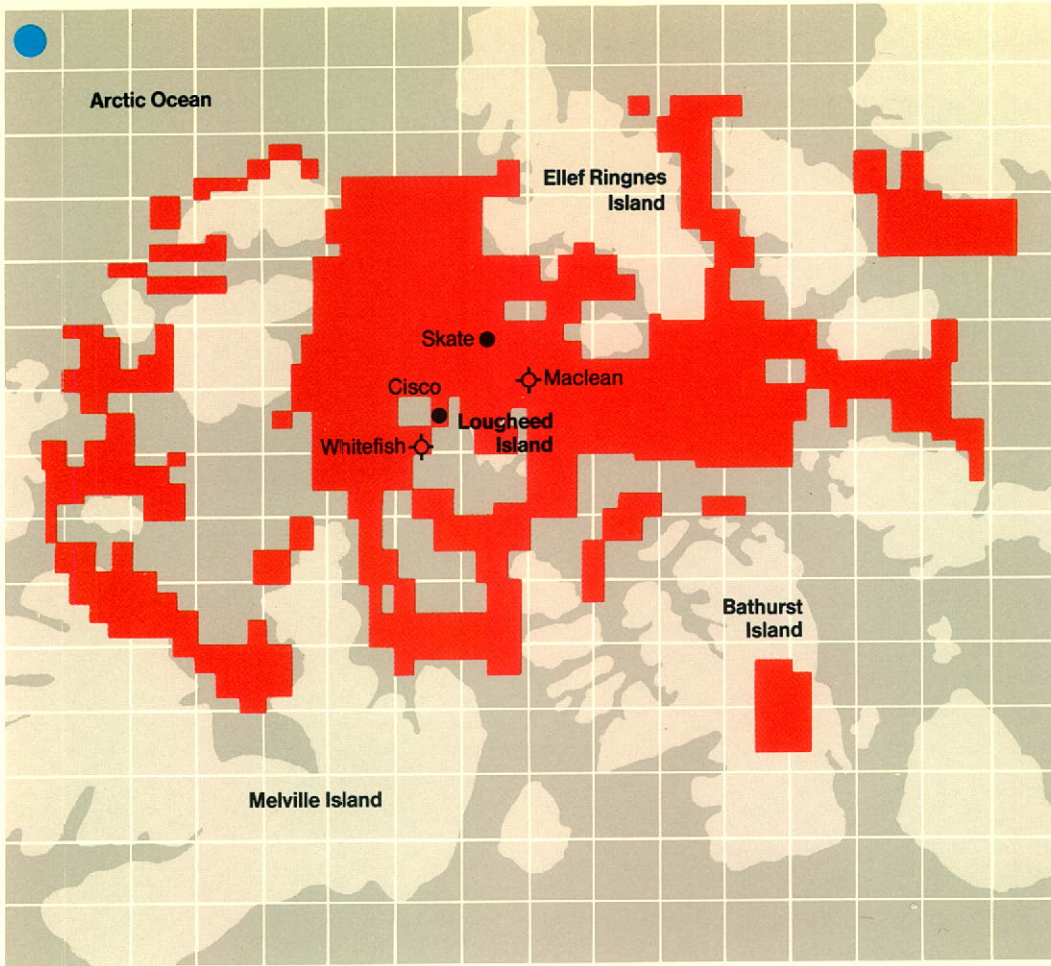
Columbia. Exploration over the next few years will determine the most suitable lands for retention, with potential for future mine development.

Continued Page 20

Beaufort Sea

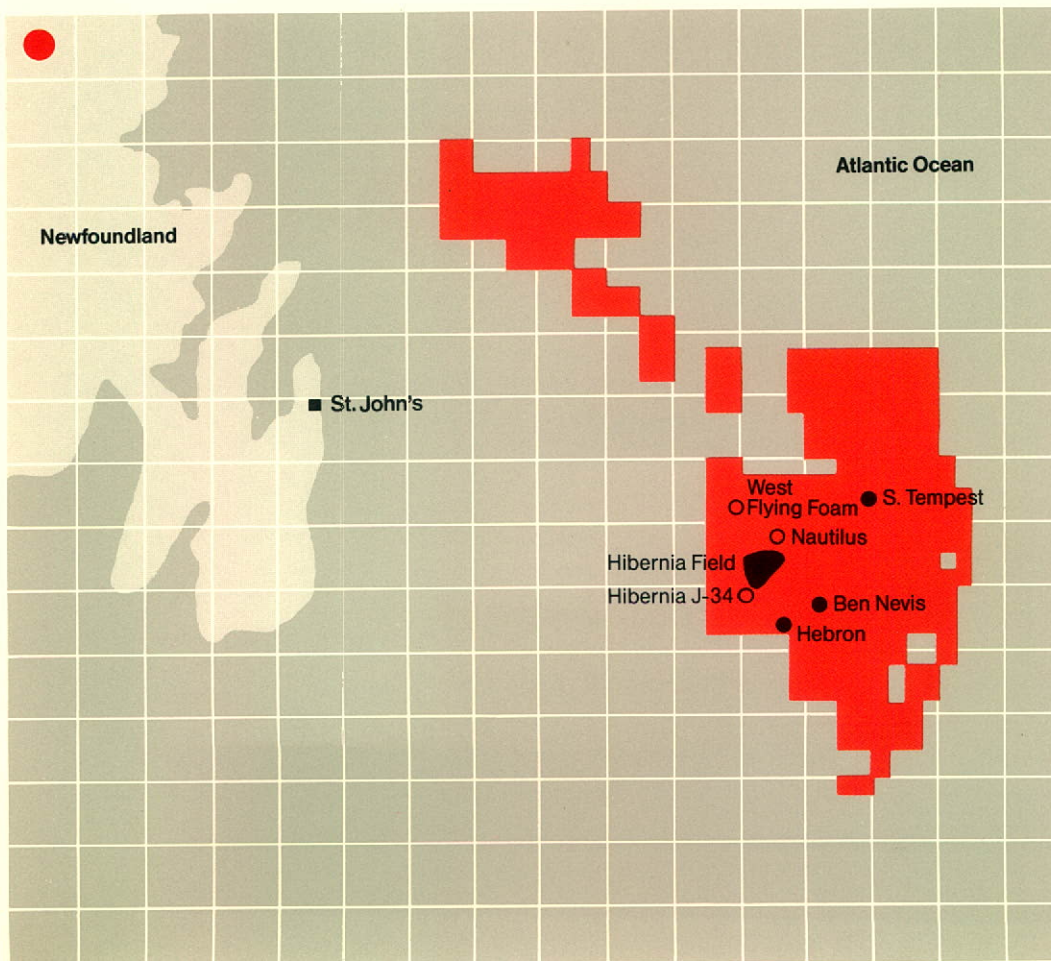
Oil flows from wells tested in 1981 indicate the presence of major reserves on GCRI-interest Beaufort Sea lands.





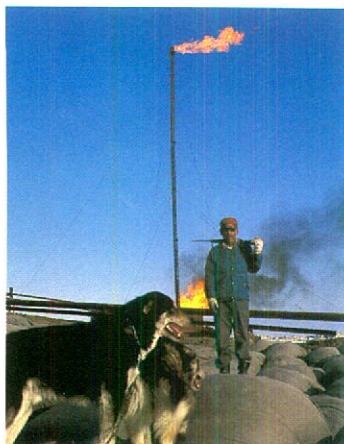
Arctic Islands

In the Arctic Islands, delineation wells on the Whitefish and Cisco structures are currently drilling.



Grand Banks

On the Grand Banks east of Newfoundland further evaluation of Hibernia field adds confidence to estimates of 288 million cubic metres of recoverable light oil.



Upper: Polar bear patrol is carried out on Beaufort Sea artificial island where the Issungnak delineation well added to oil and gas reserves in 1981.

Lower: In the Beaufort Sea, GCRI is operating the Tarsiut delineation well in which it will retain a 40.5 per cent interest after farming out a portion to Norcen Energy Resources

Challenge: Accelerate Evaluation of Beaufort Sea Potential

To date, the main obstacle to rapid evaluation of Gulf Canada's many excellent prospects in the Beaufort Sea has been the fact that it takes at least two years to drill and test a well with either of the two current techniques — using drillships or dredged islands.

Drillships, used in the Beaufort's deeper waters, can operate for only 100-110 days during open water each

summer. Since the first well was spudded in 1976, drillships have been able to operate for only 667 days — less than two years.

More extended drilling is possible from islands constructed of dredged material in the shallower waters, but they take one summer to build. Costs on some wells have escalated to around \$150 million.

Response: Design and Build New — Concept Drilling System

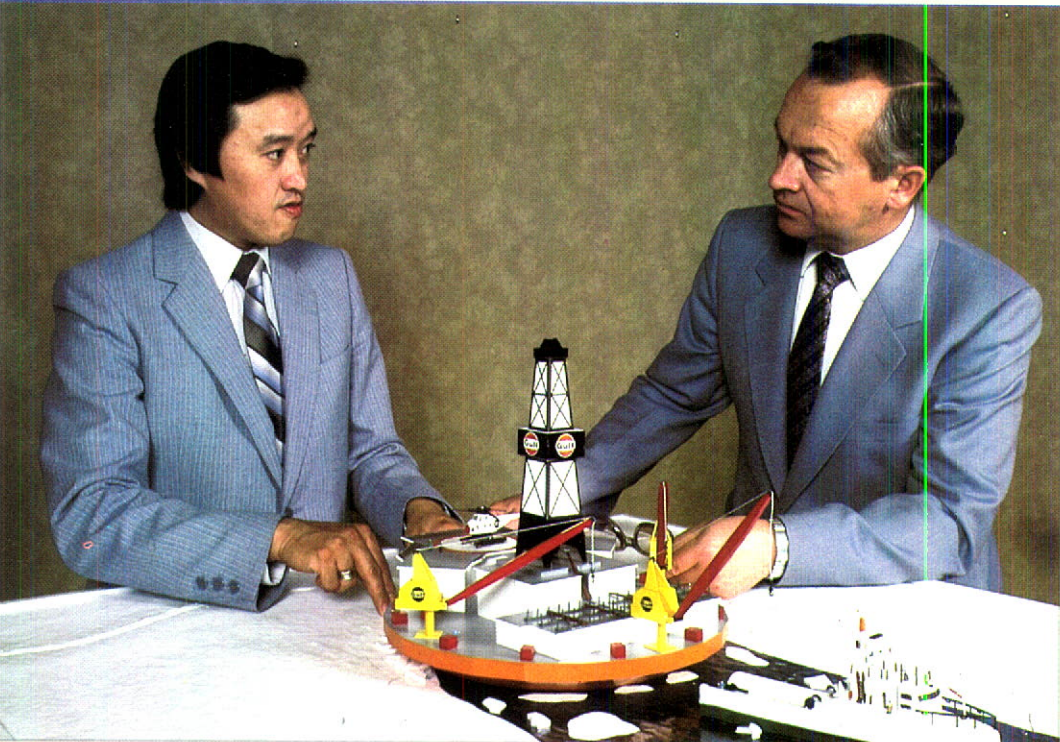
During 1981, contracts were let for construction of Gulf Canada's unique \$674-million Beaufort Sea Drilling System — the largest single investment in Gulf Canada's history.

It consists of two huge drilling units, two 18,600-horsepower ice-breakers and two ice-breaking supply vessels as well as an administrative camp at Tuktoyaktuk and a marine base at McKinley Bay to be built in 1982. Both drilling units are expected to substantially increase the present drilling season and be capable of completing one well each year.

Scheduled for delivery during the summer of 1983 is the Conical Drilling Unit, designed for deeper waters. It is a massive circular barge which will be moored above each drilling location by

12 anchor lines. The unit's inward-sloping hull is designed to break ice downward and away from the anchor lines.

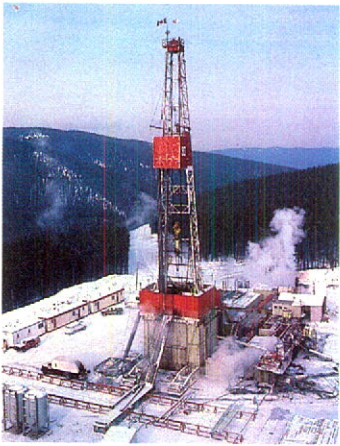
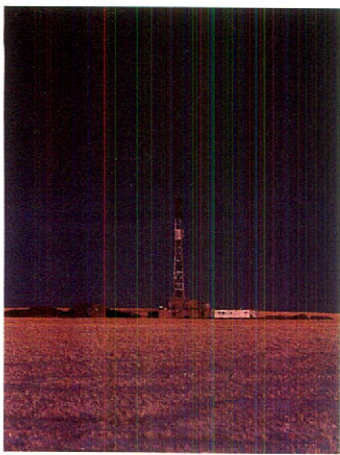
Coming into service the following summer will be the Mobile Arctic Caisson, a huge self-contained moveable "island" 90 metres square, designed for drilling in shallower waters of up to 40 metres. Towed to a well location, it will be lowered onto a prepared sea-bed foundation, using sea water as ballast. The interior sub-deck core will then be filled with dredged material for stability. The outer walls have been designed to deflect ice upward and break it into harmless chunks. On completion of a well, the unit will be emptied of its earth core, refloated and towed to the next location.



In charge of GCRI's \$674-million Beaufort Sea Drilling System, John Loh (l), division manager, and Dan Motyka, vice-president, frontier, discuss model of the Conical Drilling Unit for deeper water, and one of two supporting ice-breakers.

Opposite page: A major Beaufort Sea oil discovery in 1981 was the Koakoak well, some 40 km east of the Kopanoar field. Present drillship or dredged-island techniques require at least two years to drill and test a well, but each of Gulf Canada's new Beaufort drilling units should be able to complete a well in a single season.





Upper: GCRI's oil exploration in western Canada includes this well drilling on the Blood Indian Reserve in southwestern Alberta.

Lower: A major farm-out agreement with Alberta Energy Company is helping GCRI to maintain a high level of exploration in western Canada, including this foothills well west of Rocky Mountain House.

Frontier Development

Recognizing the immense potential of frontier exploration, GCRI formed a new Frontier Department with responsibility for development of frontier resources, socio-economic and environmental planning.

Pending resolution of the jurisdictional dispute between the federal and Newfoundland governments, the company has budgeted funds for preliminary engineering designs and environmental impact assessments from which cost estimates can be made for Hibernia oil production systems.

Representing the pioneering of technology, the first caisson-retained island built for use as a Beaufort Sea drilling platform was completed late in 1981 at the Tarsiut N-44 location.

Beaufort Drilling System

In June, GCRI announced plans to design, build and operate its new-technology Beaufort Sea Drilling System. At an estimated cost of \$674 million, it is the largest single investment in the corporation's history. The system, consisting of two large drilling units, two ice-breakers, two supply vessels, a marine base and an on-shore administration base, is specifically designed to extend the drilling season in the Beaufort Sea.

Environmental Planning

As part of the preliminary work leading to frontier production, a new Frontier Environmental Planning Group is formulating socio-economic policies and programs and is keeping communities in the region informed about the Beaufort Sea

Drilling System.

The group will continue to provide information and consultation services dealing with subjects such as native training, employment, and business opportunities in the north.

Production and Development

Production Operations

CRUDE OIL

Gross production of crude oil averaged 15,200 cubic metres per day during 1981, down from the 1980 levels because of lower demand related to Alberta government production cutbacks and production declines from mature conventional reservoirs.

The company is proceeding with a miscible flood-enhanced oil recovery project on the south lobe of the Fenn-Big Valley field. The oil produced from this 100-per cent GCRI-interest area will qualify for the New Oil Reference Price provided by the Alberta-Ottawa agreement on energy pricing and taxation. This project should result in an additional 800,000 cubic metres of oil being recovered over the 20-year life of the project. Construction of field facilities will be carried out during 1982, with initial injection scheduled for late in the year. Produc-

tion is expected to peak at 210 cubic metres per day in 1988.

NATURAL GAS

Gross production of natural gas was 8.4 million cubic metres per day, down from 1980 due primarily to reduced Canadian and U.S. demand. Gas liquids production was 2,800 cubic metres per day.

Near Edson, Alberta, about 260 km west of Edmonton, construction began on the \$250-million Hanlan-Robb gas processing plant which will have capacity to process 8.4 million cubic metres of raw gas per day.

When the plant goes on stream in January, 1983, gas from several fields will be processed for delivery to the eastern leg of the Alaska Highway natural gas pipeline pre-build.

Complementing the Hanlan-Robb project, GCRI operates or has varying interests in some 20 new gas projects. The combined new production from these projects is expected to exceed 1.1 million cubic metres per day by early 1983. These projects are in various stages of development and the bulk of construction will take place in 1982. The gas will be sold to specialized domestic mar-

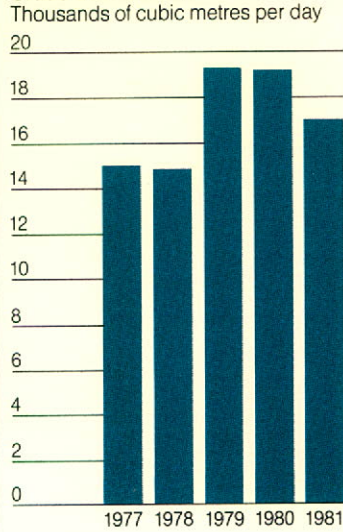
Right: At information meetings held in northern communities, GCRI vice-president Dan Motyka discussed Beaufort Sea drilling with northern councils.



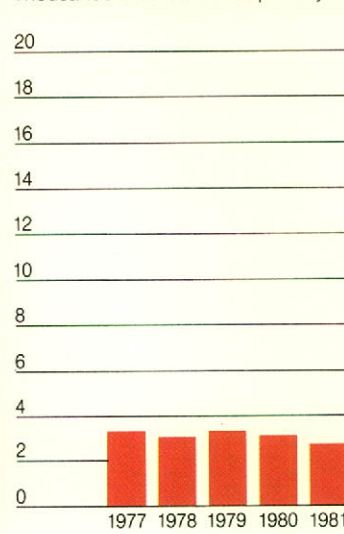
Estimated Remaining Reserves

	Gross 1981/1980	Net 1981/1980
Crude Oil and Natural Gas Liquids (millions of cubic metres)		
Western Canada		
Proved (1)	52.1/55.0	33.4/35.6
Established (2)	68.8/72.0	43.4/46.5
Rest of Canada (3)		
Established	19.3/ 9.0	15.2/ 7.1
Natural Gas (billions of cubic metres)		
Western Canada		
Proved (1)	67.1/69.6	48.8/50.4
Established (2)	84.3/85.1	61.1/61.6
Rest of Canada (3)		
Established (2)	47.5/45.6	40.3/38.8
Synthetic Crude (millions of cubic metres)		
Syncrude (4)		
Proved (1)	15.2/23.2	10.7/16.4
Sulphur (millions of tonnes)		
Proved	4.2/ 4.5	3.3/ 3.6

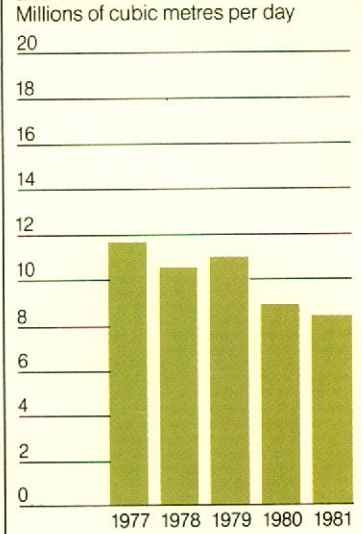
Gross Conventional and Synthetic Crude Oil Produced



Gross Natural Gas Liquids Produced



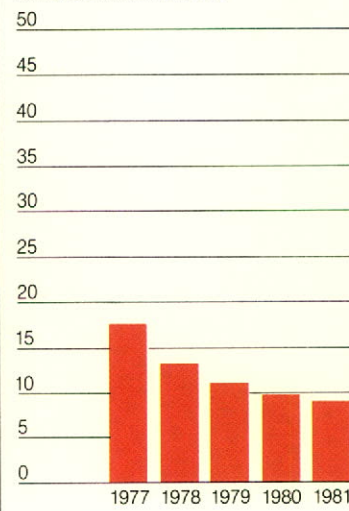
Gross Natural Gas Produced and Sold



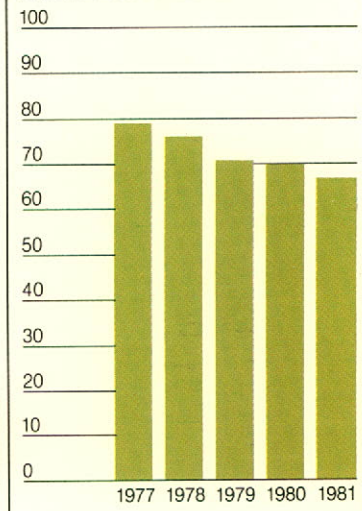
Estimated Gross Reserves Conventional Crude Oil



Estimated Gross Reserves Natural Gas Liquids



Estimated Gross Reserves Western Canada Natural Gas



(1) Proved gross reserves are before deducting royalties. Net proved reserves are after deducting royalties which vary depending on prices, production rates and legislative changes. Proved reserves are those which appear with reasonable certainty to be recoverable under existing economic and operating conditions.

(2) The definition for the established category is the same as recommended by the Canadian Petroleum Association, the National Energy Board and the Alberta Energy Resources Conservation Board. Established reserves are those reserves which appear with reasonable certainty to be recoverable under existing and anticipated economic conditions. Proved reserves are part of this category.

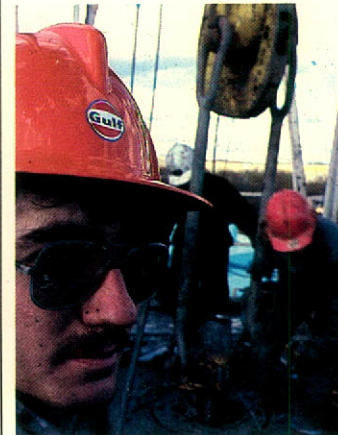
(3) The rest of Canada includes frontier and east coast reserves in areas such as Parsons Lake, Whitefish, Kopanoar and Hibernia.

(4) Synthetic crude oil reserves resulting from Gulf Canada's interest in the Syncrude project are shown in gross and net volumes. The 1981 volumes reflect the January 1, 1982 Alberta government loan conversion option which reduced the corporation's interest from 13.4 per cent to 9.03 per cent. The Alberta government has a 50 per cent net-profit interest in the Syncrude project as defined in an agreement between the project participants and the government, with an option to convert to a 7.5 per cent gross royalty. On either basis, the Alberta government has the right to take its share in kind. These reserves will be extracted by mining and processing oil sands.

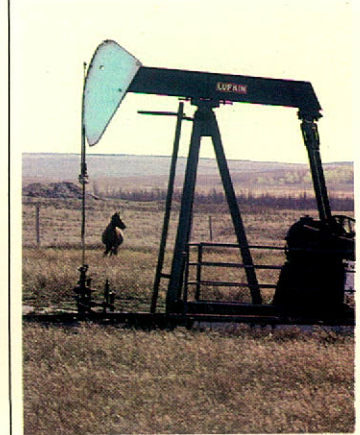
Second phase of GCRI's Pelican Lake project in Alberta's Wabasca oil sands deposit will more than double current production.



The Saskatchewan Heavy Oil Project, in which GCRI has a one-third interest, had 120 wells producing at the end of 1981.



Primary methods recover less than five per cent of heavy oil in place but more costly techniques can boost productivity considerably.





Issungnak delineation well, tested here, extended Beaufort Sea discovery and evaluated deeper formations.

kets and to Pan Alberta Gas Ltd. for export to the United States.

Subject to Alberta Energy Resources Conservation Board approval, GCRI's first involvement in ethane production will be a 25 per cent interest in a planned ethane extraction project at Judy Creek, 210 km northwest of Edmonton. The plant's

total production, 2,600 cubic metres per day, will be pipelined to a natural gas liquids fractionation plant at Fort Saskatchewan, 32 km northeast of Edmonton.

Expansion of the present Fort Saskatchewan plant, in which GCRI has a 31 per cent interest, will be necessary to provide fractionation

facilities for ethane and natural gas liquids recovered at Judy Creek and other northern Alberta plants. The ethane will be a feedstock for Alberta's developing petrochemical market.

Production Development
Development and outpost drilling resulted in 57 net wells of which 38 were

Challenge: Arrest Declining Sales of Natural Gas

Despite the temporary surplus of natural gas which developed in western Canada during the 1970s, GCRI continued to explore and added substantial reserves in several fields in the Foothills region of west-central Alberta.

During this period, both domestic and export markets for Canadian gas stood

still. Gulf Canada's annual production declined slightly, due to reduced volumes from mature fields and lack of markets for new shut-in gas reserves in western Canada. The challenge was to find new markets and begin to produce some of the additional reserves which had been found.

Response: Build the \$250-Million Hanlan-Robb Gas Plant

Gulf Canada Resources Inc. believed that federal approval for pre-building the Canadian portion of the Alaska Highway gas pipeline would require additional export sales contracts. These would make the line economic in the early years while Alaska production was building up. Later, the pipeline would provide capacity to meet Canadian needs expanding under the federal "off oil" incentives.

GCRI and other companies with gas reserves in the highly-productive Hanlan-Robb area of Alberta obtained short-term sales contracts for U.S. markets and, with regulatory approvals, began construction of the \$250-million

Hanlan-Robb gas processing plant 260 km west of Edmonton. GCRI, with a 37 per cent interest, is operator.

Designed to process 8.4 million cubic metres of raw gas per day, the plant will have a daily capacity to produce 6.34 million cubic metres of sales gas, 1,147 tonnes of sulphur and 31.8 cubic metres of condensate.

When the plant begins operating early in 1983, a total of 26 years will have passed since the first discovery in the area — a long time even for an industry accustomed to making large investments of "patient dollars" over extended periods of time.



\$250-million Hanlan-Robb plant currently under construction near Edson, Alberta, will help maintain natural gas sales.



North America's first sulphur prilling tower, at Strachan Gas Plant, makes a low-dust product popular with shippers.

designated as oil; 19 as gas. Many of these wells, located by modern seismic programs in and around existing mature fields in Alberta's Hanlan-Robb, Edson, Pembina, Kaybob, Garrington, Sylvan Lake and Stettler regions, have added significant quantities of both reserves and production. The success ratio on this drilling was very high.

Gross proved reserves of crude oil, natural gas liquids and natural gas continued to decline in 1981. The decrease in proved reserves of conventional crude oil and natural gas liquids, from 55 million cubic metres to 52.1 million cubic metres, was approximately the same as in 1980. Proved natural gas reserves were down from 69.6 billion cubic metres to 67.1 billion cubic metres due to continuing depletion of older reserves.

Heavy and Synthetic Oil

During 1981, GCRI participated in 57 heavy oil development wells with a 79 per cent overall success ratio, adding approximately four million cubic metres of net oil in place. This equates to an established reserve addition of about 400,000 cubic metres.

GCRI's share of heavy oil production from both company- and partner-operated fields increased from 23 cubic metres daily in 1980 to about 171 cubic metres per day at the end of 1981.

In the Saskatchewan Heavy Oil Project (SHOP) area, in which GCRI participates with Saskoil and Petro-Canada, the major pool on the Cactus Lake block was further delineated in 1981. This block

has 99 producing wells with a gross production capability of 550 cubic metres of oil per day.

GCRI drilled 17 exploration and development wells on the Edam block in west-central Saskatchewan in 1981. Expenditures on the block exceeded \$6 million by mid-year, raising GCRI's interest in the lands to 20 per cent. Two steam-stimulation enhanced-recovery tests in the Edam area had favorable results. A larger-scale enhanced-recovery project is being planned.

A significant pool in the Senlac area, discovered by the company in 1980, was further delineated in 1981 with ten wells. It now has 12 producing wells capable of delivering 110 cubic metres per day.

As a 20 per cent participant in a consortium to build a heavy oil upgrader in Saskatchewan, the company has committed funds to a process selection and feedstock study. Late in the year, the consortium took options on two parcels of land in Saskatchewan for possible site location.

At the Pelican Lake project in Alberta's Athabasca oil sands, the first phase of the pilot plant, including a central treating facility and four satellite facilities, was completed. Production from 20 wells commenced in the fall.

Design and construction of phase two, including an air compressing facility, is nearing completion. Operation of the fire-flood process will commence in mid-year.

In 1981, work began on debottlenecking the Syncrude plant to in-

crease production from its initial capacity of 17,350 cubic metres per day to 20,600 cubic metres per day. In addition, Syncrude has embarked on a rigorous program aimed at reducing operating costs.

On January 1, 1982, the Alberta government exercised an option to convert its \$100-million loan to Gulf Canada to an equity interest in the Syncrude project. The conversion will reduce GCRI's interest in the project from 13.4 per cent to 9.03 per cent.

Syncrude production of 4,764,000 cubic metres, of which GCRI's share was 638,000 cubic metres, was achieved despite continuing operating problems. October shipments of 603,000 cubic metres set a new monthly record.

After several members of the Alsands consortium withdrew early in 1982, GCRI was one of the three remaining members continuing to negotiate with the federal and Alberta governments for acceptable commercial terms that would permit the project to proceed.

Phase A of the Surmont Project, evaluation of the feasibility of horizontal wells to produce oil from oil sands, was completed in 1981. The joint sponsors, GCRI and Alberta Oil Sands Technology and Research Authority (AOSTRA), have until May, 1982, to decide whether or not to proceed with the pilot phase of the project.

Pilot operations continued at the Resdeln Project throughout the year to individually steam-stimulate five wells on the company's Surmont acreage.

Challenge: Supplement Conventional Light Crude Oil Production

Canada's proved reserves of conventional light and medium crude oils have been declining since the early 1970s as new discoveries failed to keep pace with annual production.

Current reserves amount to only about seven years' supply at the estimated 1981 industry production rate of 223,000 cubic metres per day.

Response: Successful Exploration for Heavy Oil in Saskatchewan

For the past three years Gulf Canada Resources Inc. has been establishing a major acreage position and maintaining an active exploration and development program in the vast heavy oil deposits that straddle the Alberta-Saskatchewan border.

In Saskatchewan, heavy oil has been described as the 'sleeping giant' because, although production is limited, industry exploration to date has indicated the presence of at least 8 billion cubic metres of oil in place. The question is: how much can be recovered economically?

Unlike the oil locked in the oil sands, conventional heavy oil can be pumped to the surface. Up to five per cent of the oil in place can be recovered in this way, with perhaps another five per cent through secondary water-flooding techniques. Expensive tertiary methods involving use of heat and/or solvents could recover up to 20 per cent more if markets and suitable economics were available.

GCRI has enjoyed good success in drilling over the past three years and some 8.7 million cubic metres of reserves have been confirmed on lands in which it has an interest.

The frontiers hold great promise for the future, but production from those areas will not begin for several years.

Meanwhile, vast reserves of heavy oil are known to lie along the Saskatchewan-Alberta border in the vicinity of Lloydminster. What can be done to increase the economic recovery of these reserves to supplement light oil production?

The chief area of exploration is centred around Lloydminster, where GCRI, Saskoil and Petro-Canada are each earning a one-third interest in 202,000 hectares of provincial lands. Approximately 290 successful wells have been drilled on this acreage and, by year-end, 120 of them were producing. In addition, the company is drilling actively on both Crown and freehold lands in the province as well as on a major farm-in on Husky lands in the Edam area east of Lloydminster.

During 1981, the company established a production office at Battleford, in the heart of Saskatchewan's heavy oil country.

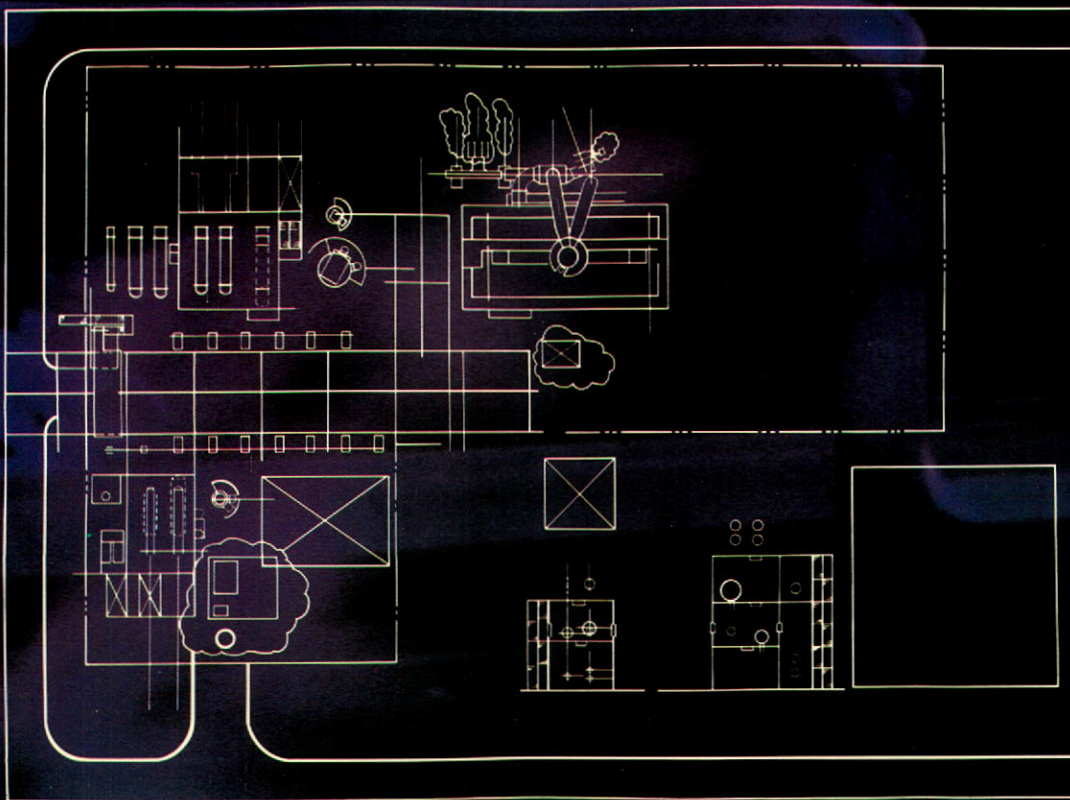
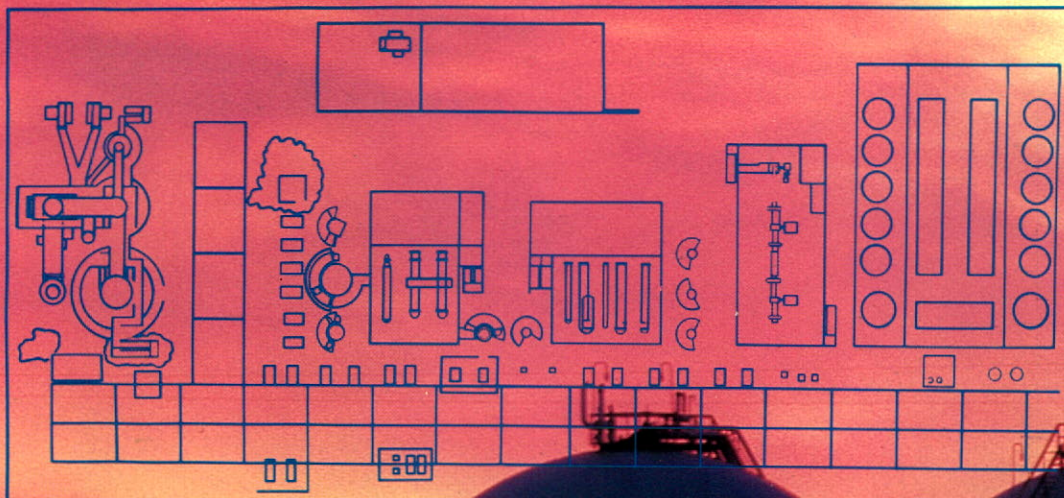
GCRI's heavy oil production in 1981 amounted to a modest 171 cubic metres a day, but a projected increase to 425 cubic metres of primary production daily in 1982 will partially replace declining production of light oils in western Canada.

Before markets increase significantly for Canada's heavy oil production an upgrader will have to be built. GCRI has a 20 per cent interest in a proposed \$1-billion-plus upgrader which is scheduled to come on stream in 1986.



To augment conventional light oil production, GCRI is starting to tap western Canada's vast heavy oil deposits.

**Gulf Canada
Products
Company**



A \$245-million addition of synthetic oil processing capacity at Edmonton Refinery is largest current project of Gulf Canada Products Company.

Gulf Canada Products Company

Financial and Operating Summary

FINANCIAL (millions of dollars)	1981	1980
Net segment earnings after taxes	\$ 213	\$ 179
Capital expenditures	\$ 198	\$ 94
Capital employed at year-end	\$1,775	\$1,463
Return on average capital employed	13.2%	12.8%
OPERATING (thousands of cubic metres per day)		
Crude Oil		
Processed	43.5	46.1
Capacity at year-end	47.0	48.5
Capacity utilized	89%	88%
Sales		
Refined products	36.2	38.0
Petrochemicals (millions of kilograms per day)	0.6	1.3

Challenge:
Maintain profitability of refined product operations in the face of declining demand for fuels.

Response:
Streamline the organization, improve co-ordination to optimize operations, and seize profitable opportunities in specialty markets.

Canada's petroleum industry is undergoing a period of significant change. The downturn in demand which the industry worldwide has been experiencing for the past several years began showing up in the Canadian market during 1981.

Gulf Canada Products Company's sales of refined products declined during 1981, but GCPC earnings rose by 19 per cent, due mainly to substantial inventory holding gains. However, since inventories sold must be replaced with higher-cost products, such gains are illusory and, after taxes, result in a net cash drain.

Declining demand for residual and heating fuels, which most eastern Canadian refineries were built to supply, is being accelerated by the federal government's 'off-oil' program which provides incentives aimed at encouraging industries and home-

owners to switch to natural gas and other fuels.

Gulf Canada supports conservation of energy as a worthy national goal, but recognizes that declining markets for refined products in the east, and static demand in the west, will cause considerable dislocation and rationalization of Canadian refineries over the next few years.

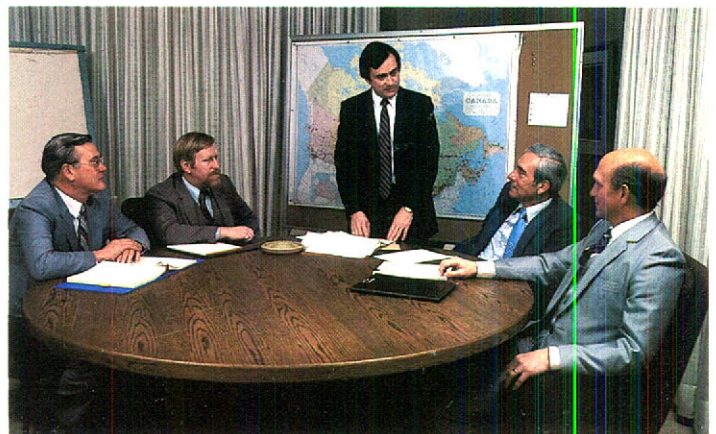
Ontario, Quebec and the Atlantic provinces have the greatest surplus of refining capacity and, consequently, experience the toughest price competition. However, the considerable new capa-

city under construction in the west — by GCPC and others — suggests that when this capacity is on stream there will have to be further rationalization of the less efficient refineries. Companies engaged in refining will also have to adjust to a demand mix calling for more diesel and jet fuels and a smaller proportion of gasoline.

To operate in this environment, greater emphasis is being placed on improving productivity and cost-efficiency in the existing business, as well as seeking out and developing attractive new markets and business opportunities on which future growth and profitability can be built.

The need for fresh ideas and a new approach has led to a reorganization in the GCPC management group. The most significant aspect of the reorganization will be the co-ordinating role to be played by the new Logistics Department in balancing and optimizing operations. This will include selection and purchase of crude oils to meet product requirements, as well as responsibility for primary distribution and inventory control.

GCPC reduced inventories by 14 per cent during 1981, with co-ordination provided by new Logistics Department headed by vice-president Bob Mayo, standing, meeting with (l) Don Wright, director, logistics operations; Francis Gould-Marks, manager logistics sciences; Bert Tufts, director, logistics planning; Jim Murphy, director, operations economics.





Record Prairie grain crop contributed to sales by Gulf Canada Farm Centres in the western Canada market.

One area of particular concern to Gulf Canada Products Company is the ever-increasing government involvement in industry operations as exemplified by the Restrictive Trade Practices Commission hearings, which began late last year as an outgrowth of the Bertrand Report on the State of Competition in the Oil Industry. Although the company is confident that it has always operated in a legal and ethical manner, the process of answering the allegations at hearings across the country will be long and costly.

Marketing

In response to the declining market demand, further consolidation of retail outlets and distribution facilities has resulted in a network of efficient, high-volume strategically-located facilities in all markets.

Emphasis has been placed on selective marketing, with a focus on specific growth areas. This has led to increased participation in the healthier western Canada market, and on the east coast where offshore petroleum exploration activity is creating new marketing opportunities for petroleum products. Similar attention is being given to the aviation fuels and solvents markets, and to diesel truck fleets served by keylock facilities.

During the year, a national image conversion program was completed, upgrading retail outlets to a new orange-and-beige exterior decor. The company's fleet of small and medium-sized delivery trucks is also undergoing a change to an attractive orange color scheme.

Continued Page 30



Top right: Over 90 per cent of the company's 1,646 service stations are operated by independent dealers and lessees like J. Paul Roy, of LaPrairie, Quebec.

Although total sales of refined petroleum products declined during 1981, demand is still growing for jet and diesel fuels. Among GPC's major customers are Pacific Western Airlines at Edmonton (middle), and McCallum Transport, Oshawa, Ontario (bottom).

Challenge: Strengthen Market Position in Western Canada Market

Toward the end of the 1970s, as demand for refined products in the strong western Canadian economy began to catch up with refining capacity in the west, Gulf Canada Products Company realized that an attractive expansion opportunity was available.

To strengthen Gulf's healthy 20 per cent market share in the region, it was decided that the best long-term strategy was to expand the company's modern Edmonton Refinery, located at the hub of Canada's east-west oil pipelines and in

the heart of Alberta's oil-producing areas.

However, production of conventional light crude oils in western Canada had been declining throughout the decade. It was apparent that, in future, feedstocks for Canadian refineries would have to come increasingly from oil sands and heavy oil production.

These circumstances provided Gulf Canada Products Company with an opportunity to expand its refining capacity profitably in the relatively healthy western Canada market.

Response: Synthetic Crude Processing at Edmonton Refinery

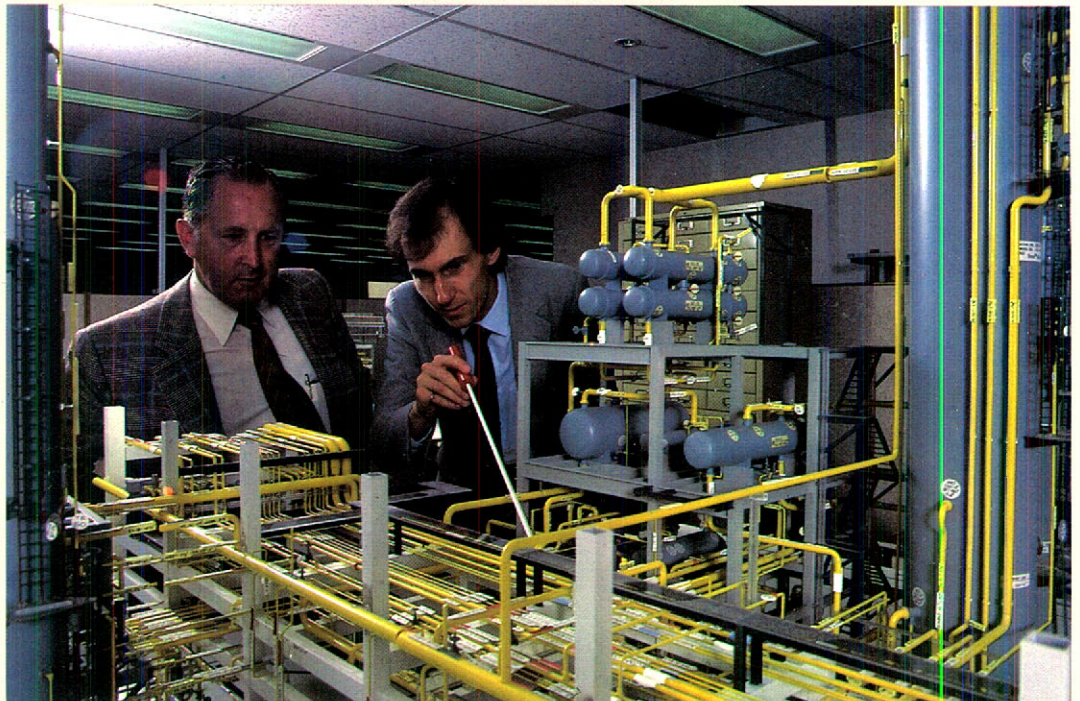
In February, 1980, Gulf Canada Products Company announced plans to increase the capacity of Edmonton Refinery by more than 50 per cent, to almost 20,000 cubic metres a day, with the additional capacity designed to refine synthetic crude oil from oil sands plants and heavy oil upgraders.

The economics of such an expansion were attractive due to assured feedstock supplies from Syncrude, and because the product yield would closely match market demand. With no heavy residual "bottoms" in the partially-processed synthetic crude, the output of distillates would be greatly increased — ideal for the growing western diesel fuel market.

The \$245-million expansion, well under way at year-end, will make the strategically-located Edmonton Refinery the company's largest-capacity plant.

The first phase of the expansion, a crude oil fractionator, will come on stream in the summer of 1982, raising processing capacity by about 1,590 cubic metres per day to 14,300 cubic metres daily. The second phase, which consists of a hydrotreater and hydrogen unit, will go into service in 1983.

The Edmonton Refinery expansion is evidence of the company's determination to improve its efficiency and competitive position by acting quickly to capitalize on profitable opportunities.



GGPC construction superintendent Bob Allan and resident engineer Allan Terplawy study model of facilities to expand Edmonton Refinery capacity by 50 per cent. The first phase, a crude oil fractionator, will start up in mid-1982.

Opposite page: Reviewing progress on first phase of Edmonton Refinery expansion are (l) Jean Filion, Bechtel Canada site manager; construction superintendent Bob Allan, and Edmonton Refinery manager Gordon Docken.





Clarkson Refinery warehouse is busy meeting demand for Gulf Canada's HydroTreated lubricants.

Challenge:
Strengthen Gulf Canada's position in the lubricants market and increase Canada's self-reliance by displacing imported lubricants.

Response:
Build Canada's only hydrogen-treated lubricants plant and become the country's second largest lubricating oil supplier.

Manufacturing

Refinery throughput in 1981 was 8.1 per cent below the previous year, mainly because of declining demand. However, improvements in operating efficiencies resulted in a significant reduction in energy consumption.

Well under way at Edmonton Refinery is a \$245-million project to expand capacity by 55 per cent to almost 20,000 cubic metres a day through the addition of facilities especially designed to process synthetic crude oil.

The first phase, the fractionation unit, scheduled to be operating by mid-1982, will add approximately 1,590 cubic metres a day to the present throughput of around 12,700 cubic metres a day.

Completed during the summer was a \$35-million project to increase the annual output capability of Clarkson Refinery's Hydro-Treated lube oil plant. As a result of the popularity of these new oils, introduced in 1979, Gulf Canada's share of the lubricating oil market has grown from 12 per cent to 19 per cent, making GCPC Canada's second largest supplier of lubricants.

In eastern Canada, where a surplus of residual fuel is the most serious problem, GCPC is leading an industry group evaluating construction of a residual fuel upgrader of between 7,150 and 7,950 cubic metres a day capacity in the Montreal refining area. A feasibility study is in progress and a decision on this \$1.5- to \$2-billion project is expected by mid-1982.

An ambitious program to achieve a major improvement in safety, occupational health and the work environment is aimed at



establishing and encouraging productive and healthful work habits.

Supply and Distribution

The crude oil production cutbacks ordered by the province of Alberta from March 1 to early September, before a revenue-sharing agreement was reached with the federal government, did not result in shortages at the refineries. Fortunately, the impact was minimized by reduced demands and a crude surplus on world markets.

Reflecting reduced demand for refined products, as well as the closing of Point Tupper Refinery, GCPC's 1981 crude oil import requirements were about 20 per cent lower than in 1980 — a reduction of 0.4 million cubic metres.

The company suspended use of the marine terminal at Point Tupper, Nova Scotia, for crude oil transshipment. However, Point Tupper will continue to be used as a distribution terminal for refined products. In future, GCPC will meet product requirements for the Atlantic provinces primarily from Montreal East Refinery.

Chemicals

The healthiest part of the company's petrochemicals business in 1981 was the aromatics group, including phenol and the nylon intermediate cyclohexane. Demand was close to plant capacity during the first three quarters of the year, before weakening in response to the recession and world surpluses.

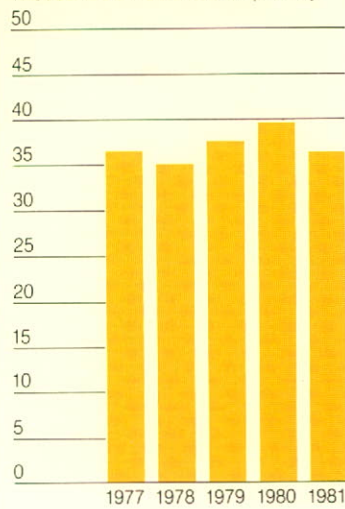
Due mainly to poor ethylene and derivatives markets, the Pétromont consortium, in which the corporation will hold a one-third interest, operated at 82 per cent of capacity.

Earnings from Commercial Alcohols, Gulf Canada Limited's wholly-owned synthetic ethanol-producing subsidiary, were lower than in previous years because of severely depressed prices.

GCPC is actively studying entry into the western Canada chemicals business through a world-scale benzene plant being evaluated for Edmonton Refinery. Feedstocks from such a plant could open the door for participation in one of the major aromatics derivatives projects in Alberta.

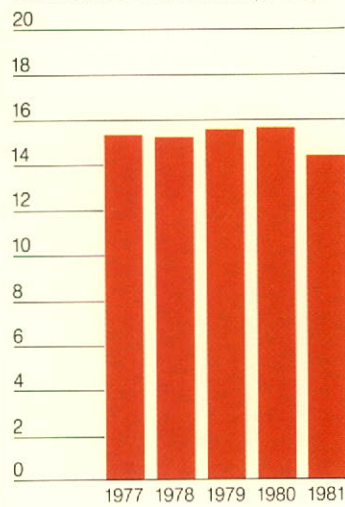
Canadian Crude Oil Processed by and for the Corporation

Thousands of cubic metres per day



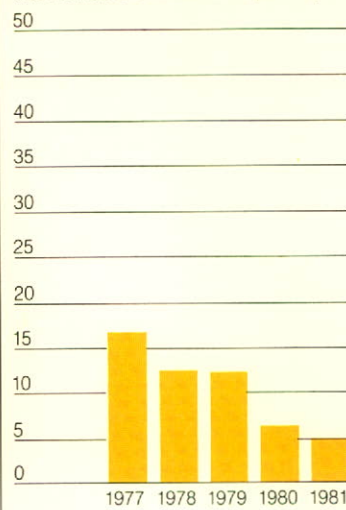
Refined Products Sold – Motor Gasolines

Thousands of cubic metres per day



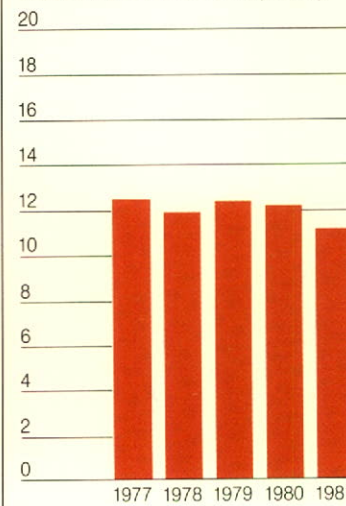
Imported Crude Oil Processed by and for the Corporation

Thousands of cubic metres per day



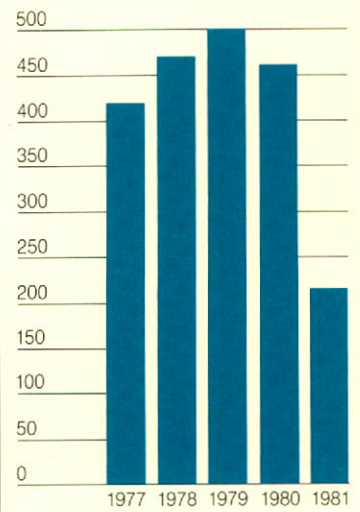
Refined Products Sold – Middle Distillates

Thousands of cubic metres per day



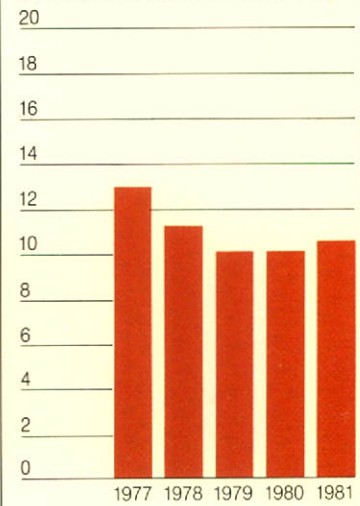
Petrochemical Sales

Millions of kilograms



Refined Products Sold – Other

Thousands of cubic metres per day



Wilman Nunez, no. 2 operator, Clarkson Refinery



Howard Rennie, wheelsman, MV Gulf Gatineau



Ed Pursey, Gulf Canada dealer, Cobourg, Ontario



Sharon Lloyd, supervisor, Human Resources, Toronto

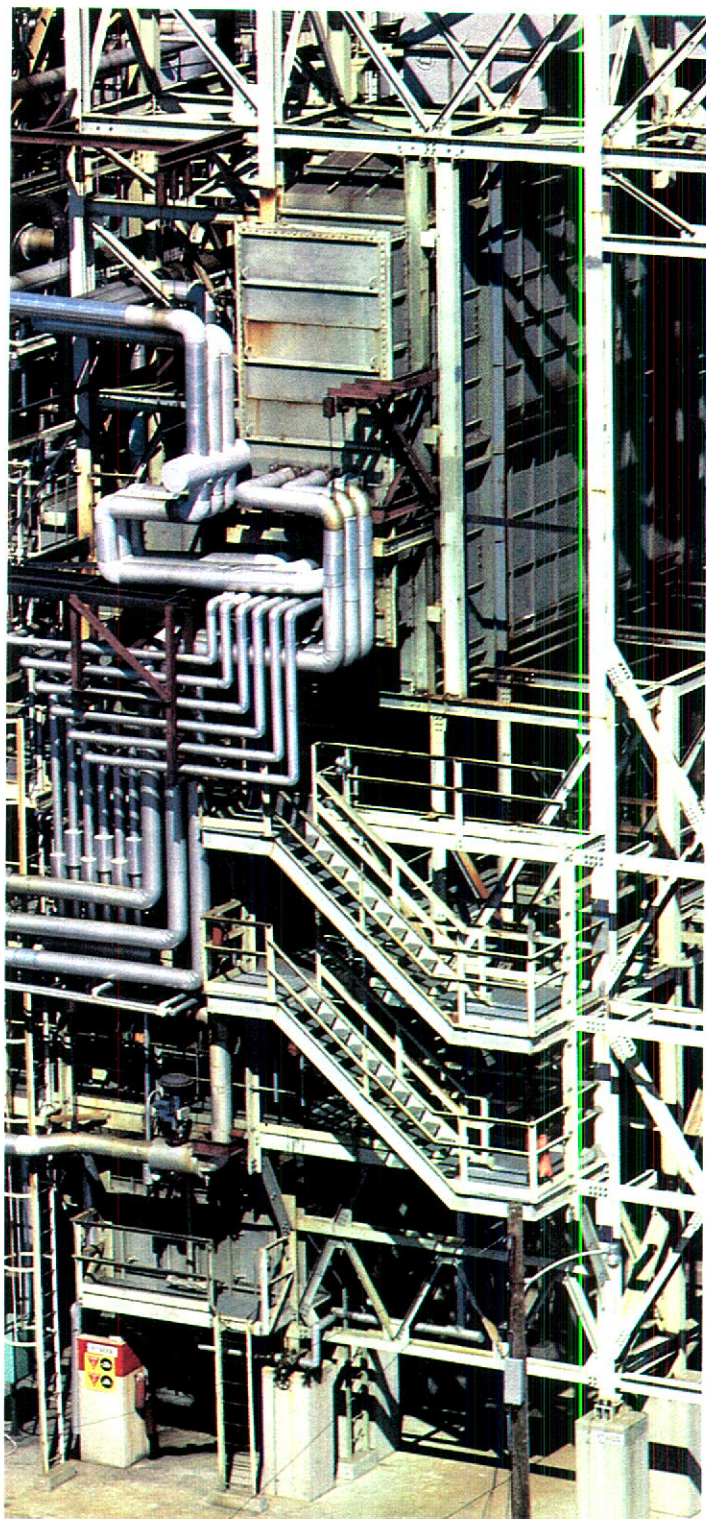


The company is part of a group studying the feasibility of liquefying some of Cape Breton Island's coal production, and is also involved in a joint task force study with Petro-Canada to consider possible development of a world-scale petrochemical complex on the eastern seaboard using hydrocarbons to be produced from the Arctic or east-coast frontiers. Either or both of these projects could provide a future use for the strategically-located refining facilities at Point Tupper.

Superior Propane

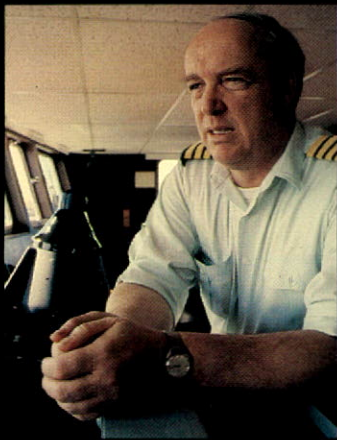
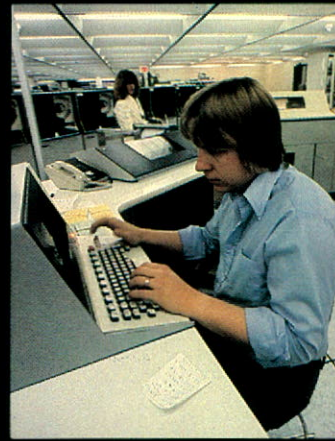
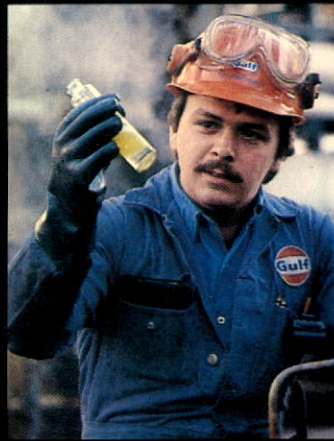
Responding to fuel substitution incentive programs instituted by the federal government and some provinces, Gulf Canada Limited's wholly-owned subsidiary, Superior Propane, has established itself in the propane motor fuel market. It also continues to serve home heating customers in many parts of Canada.

Conversions of fleet vehicles to propane are being performed at Superior's Petrolane service centres throughout Ontario and on a limited basis in other provinces. Fleet conversions have already been completed for a number of truck and school bus operators, as well as several police departments. In addition, strategically-located filling facilities are also being established to serve the retail propane motor fuel market.



Top right: GCPC manages the Varennes, P.Q. olefins plant for the Pétromont consortium in which Gulf Canada Limited has a major interest.

Right: With interest growing in propane as a motor fuel, Superior Propane's Petrolane service centres converted several truck, bus and car fleets to propane in 1981.



In the final analysis it is the vital employee element responding to the everyday challenges that determines the company's profit picture. Contributing to Gulf Canada's success in 1981 were employees like (top left) Alfred Hebermeyer, Frontier Department; Lorne Walper, Port Moody Refinery; Wes Brevig, Exploration Department; (middle left) Captain John MacIntyre, MV Gulf Gattineau; Rostyslaw Zajac, Frontier Department; Carol Perry, Financial Planning and Analysis; (bottom left) Doug Angle, Clarkson Refinery; Brian Bond, Edmonton Refinery; George Papadopoulos, Research and Development Centre.

Earnings

Net earnings for the year were \$299 million or \$1.31 per share, a decrease of 21 per cent from 1980 earnings of \$380 million or \$1.67 per share, but slightly ahead of the \$288 million or \$1.27 per share in 1979. The return on average capital employed was 10.4 per cent in 1981 as compared with 15.3 and 13.3 per cent in 1980 and 1979, respectively.

Natural resource earnings declined significantly to \$82 million, compared with \$192 million in 1980 and \$201 million in 1979. The main reasons for the decrease in the current year were the Petroleum and Gas Revenue Tax (PGRT) which has been in effect since the first of the year, higher exploration and dry hole expense and lower earnings from the Syncrude project. Increased revenue from wellhead prices was offset by lower production volumes and higher operating and administrative expenses. In spite of the lower earnings, income taxes fell only slightly due mainly to the non-deductibility of the PGRT for income tax purposes.

Net production of crude oil and natural gas liquids, including synthetic crude, declined 10.5 per cent to 13,741 cubic metres per day in 1981, following a decline of three per cent in 1980. These declines were due to lower refinery demands and,

in 1981, the Alberta government cutbacks in allowable production from its Crown lands. Net natural gas produced and sold declined 5.5 per cent to 5,967,000 cubic metres per day in 1981, following a decrease of 19 per cent in 1980; both declines reflecting lower market demands. Although volumes produced from the Syncrude project were approximately the same as last year, profits decreased as increased prices were more than offset by higher operating expenses, the PGRT and an increased royalty share to Alberta. In 1980, higher production volumes from Syncrude had resulted in an improvement in earnings.

Refined product earnings for the year were \$200 million compared to \$136 million in 1980 and \$50 million in 1979. These significant earnings improvements were associated with product price increases which, during 1981, related mainly to government taxes levied under the Petroleum Administration Act. These taxes, detailed in a table on page 35, apply on receipt of crude oil at the refinery gate and resulted in the recording of inventory holding gains. However, these are accounting gains only and did not improve the corporation's cash flow as funds generated were more than offset by the higher cost of replacing

inventories and the income tax payable on these accounting gains.

Total refined product volumes sold during 1981 were slightly lower than those sold in 1980 and 1979. In 1981 a decrease of 8.5 per cent in sales of gasolines and middle distillates was largely offset by the recording of petrochemical feedstock sales volumes to the Pétromont consortium since it began operating on October 1, 1980. Refined product margins firmed in both years but were offset in 1981 by increased selling, distribution and administrative costs and the effect on earnings of the lower refined product volumes sold.

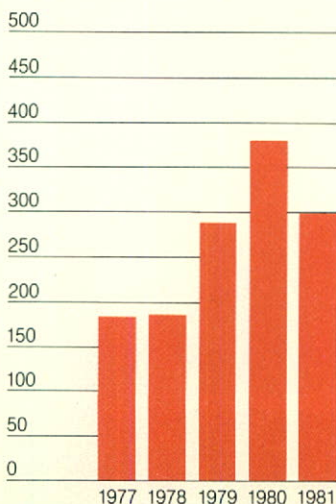
Chemical earnings dropped to \$13 million in 1981 from \$43 million in 1980 and \$22 million in 1979. The 1981 decline reflected softer market conditions and sale of the Varennes Plant to the Pétromont consortium on October 1, 1980, which resulted in a capital gain in that year. Petrochemical sales volumes decreased 52 per cent to 594 tonnes per day in 1981, after recording an 11 per cent decrease in the previous year.

Revenues

Natural gas revenues were \$289 million in 1981 compared with \$304 million in 1980 and \$264 million in

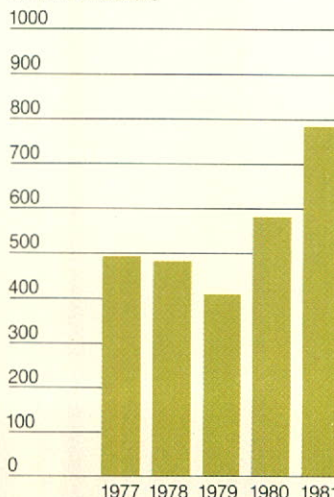
Net Earnings

Millions of dollars



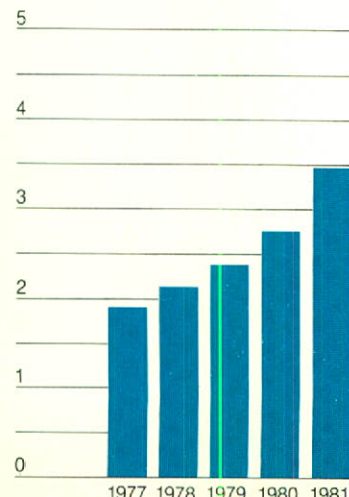
Capital and Exploration Expenditures

Millions of dollars



Capital Employed

Billions of dollars



1979. Volumes sold were down 7.5 per cent in 1981 and 17.2 per cent in 1980, due mainly to reduced demand in both domestic and export markets. Increased prices in both years more than offset this decline in volumes. Gulf Canada has substantial natural gas production capability shut in due to market conditions.

Crude oil and natural gas liquid sales were \$494 million in 1981 compared with \$407 million in 1980 and \$173 million in 1979. These improvements were due mainly to crude oil price increases of \$28.32 per cubic metre in 1981 and \$18.88 per cubic metre in 1980, authorized by the federal government, as well as higher prices for sales of natural gas liquids. Crude oil sales made to the Alberta Petroleum Marketing Commission were reported for the first time in 1980, following a decision by the Commission to control crude oil production from Crown lands in Alberta. These sales, which amounted to \$168 million in 1980, rose to \$214 million in 1981.

Revenues from refined products have shown substantial increases for the

period 1979 to 1981 due to crude oil price increases and higher taxes under the Petroleum Administration Act. These taxes increased by \$30.84 per cubic metre in 1981 and by \$10.69 per cubic metre in 1980. Margins showed some improvement over the period, but came under pressure in late 1981 due to excess refining capacity. Volumes sold were stable between 1979 and 1980, but declined 8.5 per cent in 1981 due to reduced demand caused by conservation and fuel substitution programs.

Chemical revenues were \$209 million in 1981, compared with \$269 million in 1980 and \$230 million in 1979. The current year reflects reduced sales volumes due to the recession and world surpluses. Revenues were higher in 1980 when feedstock costs increased, olefin markets were tight and prices firmer. Commencing with the last quarter of 1980, revenues declined reflecting the sale of the Varennes Plant to the Pétromont consortium in exchange for an equity interest. Since the sale, Gulf Canada has reflected its share of the earnings of the

consortium in investment and sundry income.

Other operating revenues were \$319 million in 1981, up slightly from the 1980 level, but an increase of \$103 million over 1979. The 1980 increase was due mainly to the higher compensation received from the federal government to reflect world crude oil prices for production from the Syncrude project.

Investment and sundry income rose to \$114 million in 1981 from \$100 million in 1980, and was more than double the \$51 million recorded in 1979. The increase was due mainly to higher interest rates on a larger portfolio of short-term investments. Results for 1980 also included the gain on the sale of the Varennes Plant.

Expenses

Purchased crude oil, products and merchandise amounted to \$2,274 million in 1981, up from \$1,704 million in 1980 and \$1,252 million in 1979. Largely responsible for the increases were higher crude oil costs and increased taxes imposed under the Petroleum Administration Act. These taxes amounted to \$731 million in 1981, \$155 million in

Taxes and Other Government Revenues

	1981	1980	1979
From Gulf Canada: (millions of dollars)			
Income taxes — current	\$ 226	\$ 230	\$ 119
— deferred	75	60	28
Other taxes — federal sales tax	169	120	97
— petroleum and gas revenue tax	71	—	—
— other	56	51	42
*Taxes under the Petroleum Administration Act			
— petroleum compensation charge	580	155	51
— special compensation charge	77	—	—
— Canadian ownership special charge	74	—	—
Petroleum and natural gas lease payments	62	78	59
*Crown royalties, less incentive credits	291	302	240
	1,681	996	636
Collected for governments:			
Gasoline, fuel, excise and export taxes	359	306	300
Total	\$2,040	\$1,302	\$ 936
Net earnings after tax	\$ 299	\$ 380	\$ 288

*Included in purchased crude oil, products and merchandise in the consolidated statement of earnings.

1980 and \$51 million in 1979.

Exploration and dry hole expenditures were \$277 million in 1981, \$246 million in 1980 and \$166 million in 1979. These increases reflect higher drilling costs — especially in the frontier areas — and a higher level of drilling activity in both western Canada and the offshore areas.

Operating, selling and administrative expenses increased progressively each year during the period 1979 to 1981, primarily due to the general impact of inflation.

Taxes other than income taxes were \$296 million in 1981, up sharply from \$171 million in 1980 and \$139 million in 1979. These increases were mainly the result of higher federal sales taxes in both years and, in 1981, the imposition of the eight per cent PGRT.

Income taxes in 1981 amounted to \$301 million, compared with \$290 million in 1980 and \$147 million in 1979. Although earnings were significantly lower in 1981, income taxes increased — due mainly to the non-deductibility for income tax purposes of the PGRT.

This raised the effective tax rate to 50 per cent in 1981, from 43 and 35 per cent in 1980 and 1979, respectively. The 1980 increase was caused by the five per cent federal surtax effective for that year, and higher royalties which are not allowable as a deduction for federal income tax purposes. In addition, the frontier exploration allowance expired on March 31, 1980.

Liquidity, capital resources and expenditures

Funds from operations before exploration expenditures rose to \$797 million in 1981, an increase of \$9 million over 1980 and \$221 million over 1979. During 1981 the corporation received \$450 million from public and private placement debt issues. Earnings coverage of interest at the end of 1981 was 13 times, compared to 27 times at the end of 1980. Long-term debt amounted to

Challenge: Augment Reduced Cash Flows

Committed to making the most of its many attractive opportunities in all parts of the country, Gulf Canada plans capital and exploration spending of \$7 billion over the next five years.

However, with cash flows reduced by higher taxation, management concluded that external financing would be required to meet the corporation's growth objectives. Despite Gulf Canada's low ratio of debt to equity and strong credit standing, it was not an easy year to seek external funding, due to high interest rates and the depressed market for long-term issues.

Response: Three Foreign Debt Issues

Gulf Canada executives thoroughly investigated possible sources of capital in North America, Europe and the Far East, making presentations in major financial centres to outline Gulf Canada's growth opportunities and to offset increasing international concern over government intervention in the Canadian oil and gas industry.

These efforts were successful and, by year-end, Gulf Canada had raised a total of \$495 million in Canadian funds from three separate debt issues — with \$45 million of this amount drawn down in January, 1982.

A \$200-million (U.S.) issue of 30-year debentures accounted for almost half of the total. Gulf Canada was one of only 10 non-utility corporate borrowers to raise conventional debt of that long term in the U.S. in 1981.

The corporation's mid-term debt was added to in September through a \$100-million (U.S.) private placement with an offshore source.

Far East borrowing opportunities focused on Japan. After extensive negotiations, loan agreements for approximately \$112 million (U.S.) were signed with a syndicate of Japanese banks led by The Industrial Bank of Japan — securing partial financing for components of Gulf Canada's Beaufort Sea Drilling System which are being built in Japan.

As a result, 1981 cash needs were met at acceptable rates.



Successful 1981 borrowings included loan agreements totalling \$112 million (U.S.) with a Japanese syndicate led by The Industrial Bank of Japan. Signing for Gulf Canada were (l) W.M. Winterton, vice-president, general counsel and corporate secretary; W.H. Burkhiser, former vice-president and treasurer.

26 per cent of total capitalization at December 31, 1981, compared with 14 per cent at the end of 1980.

Capital and exploration expenditures in 1981 totalled \$782 million, an increase of \$210 million or 37 per cent from 1980, and \$372 million or 91 per cent over 1979. Gulf Canada anticipates capital and exploration spending will approximate \$1 billion in 1982, which would be about 28 per cent above the 1981 level.

Non-cash working capital requirements rose by \$245 million in 1981 and \$116 million in 1980, as higher

crude oil and product costs were reflected in the increased financing required for inventories and accounts receivable.

Funds from operations and sundry other sources, together with the additional debt issues, were sufficient to meet the capital and exploration expenditures and other uses of funds, mainly dividends. At year-end the corporation had cash and short-term investments, less short-term loans, totalling \$496 million compared with \$353 million in 1980 and \$277 million in 1979.

The 1980 Federal Budget, which included the National

Energy Program, and the energy agreements between the federal government and the producing provinces have sharply reduced future cash flows. These are not expected to recover until 1983 when producer netbacks on oil production are scheduled to increase; however, the outlook for natural gas sales is improving. At the present time it is anticipated that internal cash flows, together with funds available at the end of 1981, will be sufficient to cover the 1982 capital expenditure program without outside financing.

Impact of Inflation

In 1981, Canada experienced the highest level of inflation in 33 years as the Consumer Price Index (CPI) increased 12.5 per cent. The cumulative effect of prolonged periods of high inflation has limited the usefulness of conventional historical cost financial statements in measuring the financial performance and strength of Canadian enterprises. In periods of rising prices, reported earnings, based on historical costs, are not true indicators of actual economic results since companies must replace inventories and operating assets at higher costs to maintain their capacity to provide goods and services. This is especially true for the oil and gas industry where the replacement costs of inventories, plant, and oil and gas reserves have increased dramatically in recent years.

In December, 1981, the Canadian Institute of Chartered Accountants (CICA) issued a revised exposure draft covering supplementary disclosures for reporting the effects of changing prices. This exposure draft provides for the matching of current revenues with the current cost of assets sold or consumed in the operating process. It also recognizes the need for flexibility and experimentation in

the preparation and interpretation of inflation-adjusted data.

In 1980, the CICA Oil and Gas Industry Task Force concluded that there is still no acceptable method of determining the current cost of oil and gas reserves required to maintain the operating capability of an enterprise. Indeed, companies like Gulf Canada that must replace reserves by costly exploration and by development of unconventional resources, are faced with circumstances where the replacement cost of reserves is often not determinable. Gulf Canada, nevertheless, supports the CICA initiative to promote experimentation in accounting to recognize some of the effects of inflation.

In Gulf Canada's case the major adjustments required to indicate the impact of changing prices involve:

1. Replacement cost of inventory at time of sale.
2. Depreciation, depletion and amortization charges related to the estimated current cost of the company's productive assets.

The table on page 38 reflects the estimated effects on reported historical earnings of \$299 million in 1981 and \$380 million in 1980 if these current cost adjustments were made.

The significant difference

between reported historical earnings of \$299 million and the estimated loss of \$183 million when earnings are adjusted for the effects of inflation, can be attributed to the following factors:

- Replacement of inventories at the time of sale in 1981 is estimated to have cost an additional \$269 million. Adding this amount to the reported cost of purchased crude oil, products and merchandise of \$2,274 million produces a current cost of \$2,543 million. Such an adjustment eliminates inventory profits from the adjusted current cost earnings, and reflects the higher cost of replacing inventory during the 60-day product price freeze which follows each crude oil price increase. Since inventory profits are taxable, cash flows after tax are not sufficient to replace such inventories at higher costs. These higher prices significantly increase the amount of working capital Gulf Canada requires to carry on operations. For example, the corporation's investment in receivables and inventory has more than doubled in the past five years, from \$814 million to \$1,644 million in 1981.

- Depreciation, depletion and amortization (DD&A) would increase by \$213

million, based on the estimated current costs of the corporation's productive assets; plant and equipment, and oil and gas reserves. These current costs were estimated by applying a variety of specific indices to the historical carrying values.

In arriving at the estimated current cost of property, plant and equipment, the corporation assumed reproduction of existing assets in the same locations. No consideration was given to the replacement of assets with a different type, nor to improved operating cost efficiencies of replacement assets or other benefits. Although the corporation believes its current cost estimates are reasonable, such costs are not intended to represent appraised values nor amounts for which the assets could be sold, or costs which will be incurred in future periods, or the manner in which actual replacement of assets will occur. Readers are cau-

tioned in particular that the replacement of oil and gas reserves will only take place at much higher costs. While the corporation has aggressively increased the level of its exploration expenditures from \$152 million in 1977 to \$381 million in 1981, additions to reserves have not kept pace with production. The table on page 54 shows the changes in proved oil and gas reserves during the past four years.

Although current cost earnings before income taxes for 1981 are much lower than the reported historical amount, the CICA exposure draft recommends that no adjustment be made to the income tax expense reported in the historical cost financial statements. On this basis, the corporation's overall effective tax rate would increase dramatically. In terms of taxes currently payable, the effective tax rate for 1981 based on current cost earnings would be almost 200 per cent.

This highlights the "hidden" tax that occurs during periods of inflation, which effectively results in a tax on capital and does not provide for capital recovery.

In addition to the impact on earnings, inflation also results in an increase in the dollar value of inventories and property plant and equipment. For example, inventories and the net carrying value of property, plant and equipment reported as \$2,913 million at December 31, 1981, would rise to an estimated \$4,859 million on a current cost basis. During 1981, Gulf Canada's estimated current cost of inventories and property, plant and equipment increased by \$1,079 million; however only \$505 million was estimated to be due to the effects of general inflation as measured by the CPI.

During periods of inflation, monetary assets such as cash and receivables lose purchasing power. But there is an opposite effect for

Effects of Changing Prices on Reported Earnings
(millions of dollars)

	Historical Cost Basis (As Reported)	Current Cost Basis	
	1981	1981	1980*
Revenues:			
Net	\$4,697	\$4,697	\$4,314
Expenses:			
Purchased crude oil, products and merchandise	2,274	2,543	2,059
Operating, administrative and other expenses	1,661	1,661	1,485
Depreciation, depletion and amortization	162	375	353
	<u>4,097</u>	<u>4,579</u>	<u>3,897</u>
Earnings:			
before income taxes	600	118	417
Income taxes — current	226	226	258
— deferred	75	75	68
	<u>301</u>	<u>301</u>	<u>326</u>
Reported net earnings	\$ 299		
Earnings (loss) after current cost adjustments		<u>\$ (183)</u>	<u>\$ 91</u>

*The 1980 comparative amounts have been restated to 1981 dollars to reflect the 12.5 per cent increase in general price levels.

Summary of Accounting Policies

monetary obligations such as accounts payable and debt, since less purchasing power is required to repay the obligations. In 1981 the corporation's monetary obligations exceeded its monetary assets and, in that period, the purchasing power required to repay these net amounts owed declined by \$28 million.

While the preceding information on the effects of changing prices was prepared using certain as-

sumptions under the CICA proposals, it must be recognized that equally valid alternative current cost assumptions could have produced materially different results. Because of the range of assumptions and the experimental nature of these disclosures, comparisons between companies may not be meaningful. In particular, differences between companies using the successful efforts method of accounting and those using

the full cost method for oil and gas operations are likely to be compounded under current cost methods.

Over time, it is hoped that experimentation will lead to a refinement of techniques and a narrowing of alternative methods which should improve the measurement of economic results and the comparability of reporting the effects of changing prices.

The financial statements of the corporation have been prepared by management in accordance with accounting principles generally accepted in Canada. Because a precise determination of many assets and liabilities is dependent upon future events, the preparation of periodic financial statements necessarily involves the use of numerous estimates and approximations. The more significant of the corporation's accounting policies are summarized below.

Principles of consolidation:

The accounts of the corporation and all subsidiary companies are included in the financial statements. Investments in joint venture companies owned 50 per cent or less, are accounted for on the equity basis. The corporation's proportionate share of assets and liabilities relating to the Syncrude project are included along with its share of production and costs.

Inventories:

Inventories of crude oil, products and merchandise are valued generally at the lower of cost applied on a first-in, first-out basis or market value determined on the basis of replacement cost or net realizable value.

Oil and gas exploration and development expenditures:

The corporation follows the successful efforts method

of accounting. The initial acquisition costs of oil and gas properties, the costs of drilling and equipping development wells and successful exploratory wells are capitalized.

With respect to exploratory drilling costs if, after consideration of any hydrocarbons discovered and environmental, technological or other constraints that exist, a well is classified as unsuccessful, the costs of the well are charged to expense. All other exploration expenditures, including geological and geophysical costs and annual rentals on exploratory acreage are charged to expense as incurred.

Depreciation, depletion and amortization:

Capitalized costs with respect to proved oil and gas properties are amortized against earnings on the unit-of-production method for each field using estimated proved recoverable oil and gas reserves. Charges are made against earnings for depreciation of investment in plant and equipment based on the estimated remaining useful lives of the assets using either the straight-line or the unit-of-production method, whichever is appropriate. Maintenance and repairs are charged to income; renewals and betterments, which extend the economic life of the assets, are capitalized.

Capitalized costs of un-

proved oil and gas properties are amortized on a group basis at a rate determined after considering past experience, lease terms and other relevant factors. No charges are made against earnings for the capitalized costs of certain in situ oil sands and coal properties, pending further evaluation and development.

Assets retired or otherwise disposed of are removed from the accounts. Generally, the net capital gain or loss, after adjustment for salvage and dismantling expense, is included in earnings.

Capital leases:

Leases which transfer substantially all the benefits and risks of ownership of the leased assets are capitalized. Capitalized leased assets are amortized against earnings, based on their estimated useful lives. To December 31, 1981, such leases were not significant in relation to net assets and, accordingly, have not been shown separately in the statement of financial position.

U.S. dollar liabilities:

Liabilities in U.S. dollars are translated to Canadian dollars at year-end rates of exchange. Gains or losses arising on translation of short-term liabilities are included in earnings. Unrealized gains or losses arising on translation of long-term liabilities are deferred and amortized

over the remaining term of the liabilities.

Interest costs:

Interest costs are charged to expense as incurred.

Research and development costs:

Research and development costs are charged to expense as incurred.

Income taxes:

Income tax expense is computed on the basis of revenues and expenses reflected in the statement of earnings. A portion of such taxes is not currently payable as tax legislation permits the deduction of certain costs and allowances prior to the time they are recorded as expenses for financial statement purposes. The amount not currently payable is included in the statement of financial position as deferred income taxes.

Pensions:

Pension benefit costs are determined annually by in-

dependent actuaries. The costs related to the current service of employees are charged to expense. Costs resulting from amendments or upgrading of the plans, and which relate to service of employees in prior years, are amortized over the estimated remaining years of service of the employees involved.

Crude oil transactions:

On April 1, 1980 the Alberta Petroleum Marketing Commission assumed control of the distribution of all crude oil produced in the province from crown lands. From that date, sales of crude oil to the Commission have been included in net sales and other operating revenues.

In addition to its own net production, the corporation purchases crude oil from other producers and sells crude oil not required for its own refineries. These crude oil sales are not included in net sales and other operating revenues but are applied to

reduce the amounts for purchased crude oil.

Oil import compensation program:

Under the oil import compensation program, the federal government compensates eligible importers with respect to petroleum imported for consumption in Canada, provided the importing company voluntarily maintains prices for products obtained from imported petroleum at the level suggested by the government. Compensation received or recoverable under this program is reflected as a reduction of the cost of purchased crude oil. The federal government similarly compensates purchasers of synthetic crude oil produced from tar sands plants. Compensation received under this program for the corporation's share of production from the Syncrude project is included in other operating revenue.

**Consolidated
Statements
of Earnings**

Gulf Canada Limited
Three Years Ended
December 31, 1981

	1981	1980	1979
EARNINGS <i>(millions of dollars)</i>			
Revenues			
Natural gas	\$ 289	\$ 304	\$ 264
Crude oil and natural gas liquids	494	407	173
Refined products			
— gasolines	1,395	1,051	841
— middle distillates	978	763	601
— other	899	631	477
Chemicals	209	269	230
Other operating revenue	319	310	216
Net sales and other operating revenues (note 13)	4,583	3,735	2,802
Investment and sundry income	114	100	51
Net revenues	4,697	3,835	2,853
Expenses			
Purchased crude oil, products and merchandise	2,274	1,704	1,252
Operating expenses	530	446	372
Exploration and dry hole expenditures (note 10)	277	246	166
Selling and administrative expenses	507	431	355
Taxes other than income taxes (note 15)	296	171	139
Income taxes (note 16)	301	290	147
Depreciation, depletion and amortization	162	141	123
Interest on long-term debt	51	26	25
	4,398	3,455	2,579
Earnings for the year before Syncrude gain	299	380	274
Gain on sale of portion of Syncrude interest (note 17)			14
Earnings for the year	\$ 299	\$ 380	\$ 288
Earnings per share <i>(dollars)</i>	\$ 1.31	\$ 1.67	\$ 1.27
RETAINED EARNINGS			
Balance, beginning of the year	\$1,521	\$1,234	\$1,138
Add earnings for the year	299	380	288
	1,820	1,614	1,426
Deduct — Dividends	100	93	68
— Excess of consideration applicable to shares received and cancelled over their average paid in value (note 12)			124
Balance, end of the year	\$1,720	\$1,521	\$1,234

(See accompanying notes to consolidated
financial statements)

**Consolidated
Statements
of Financial
Position**

Gulf Canada Limited
December 31, 1981
and 1980

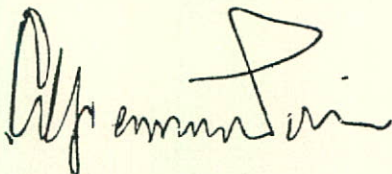
ASSETS <i>(millions of dollars)</i>	1981	1980
Current:		
Cash and short-term investments, at cost which approximates market	\$ 521	\$ 371
Accounts receivable (notes 2 and 7)	830	730
Inventories (note 3)	814	661
Materials, supplies and prepaid expenses	93	64
Total current assets	2,258	1,826
Investments, long-term receivables and other assets (note 4)	111	107
Property, plant and equipment, at cost less accumulated depreciation, depletion and amortization (notes 5 and 10)	2,099	1,759
	\$4,468	\$3,692
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current:		
Short-term loans (note 6)	\$ 25	\$ 18
Accounts payable (note 7)	549	538
Income and other taxes payable	209	227
Dividends payable	25	25
Other current liabilities	172	128
Total current liabilities	980	936
Long-term debt (note 8)	751	315
Deferred gas production revenue (note 9)	93	72
Deferred income taxes	519	443
Shareholders' equity:		
Capital stock (note 11)	405	405
Retained earnings	1,720	1,521
Total shareholders' equity	2,125	1,926
	\$4,468	\$3,692

(See accompanying notes to consolidated financial statements)

On behalf of the Board:



J. L. Stoik
Director



Alfred Powis
Director

**Consolidated
Statements
of Changes in
Financial Position**

Gulf Canada Limited
Three Years Ended
December 31, 1981

SOURCE OF FUNDS <i>(millions of dollars)</i>	1981	1980	1979
Earnings for the year	\$ 299	\$ 380	\$ 288
Income charges (credits) not affecting funds —			
Depreciation, depletion and amortization	162	141	123
Deferred income taxes	75	60	28
Other	(16)	(39)	(29)
From operations	520	542	410
Add exploration expenditures	277	246	166
From operations before exploration expenditures	797	788	576
Sales of properties and investments	20	26	21
Sale of assets to Pétromont consortium net of \$13 million representing investment in the consortium (note 14)		30	
Sale of portion of Syncrude interest			91
Long-term debt	450		2
Deferred gas production revenue	21	35	24
	<u>1,288</u>	<u>879</u>	<u>714</u>
USE OF FUNDS			
Additions to property, plant and equipment	505	326	244
Exploration expenditures	277	246	166
Total capital and exploration expenditures	782	572	410
Reduction in long-term debt	9	18	18
Dividends	100	93	68
Advance funding of pensions			10
Other (net)	9	4	1
	<u>900</u>	<u>687</u>	<u>507</u>
Increase in working capital	388	192	207
Less changes in non-cash working capital			
Accounts receivable	100	24	174
Inventories	153	118	150
Materials, supplies and prepaid expenses	29	12	13
Accounts payable and other, excluding short-term loans	(55)	16	(178)
Income and other taxes payable	18	(54)	(106)
	<u>245</u>	<u>116</u>	<u>53</u>
Increase in cash and short-term investments less short-term loans	\$ 143	\$ 76	\$ 154
Cash and short-term investments less short-term loans at end of year	\$ 496	\$ 353	\$ 277

(See accompanying notes to consolidated financial statements)

**Notes to
Consolidated
Financial
Statements**

Gulf Canada Limited
December 31, 1981

1. Accounting Policies

The more significant of the corporation's accounting policies are summarized on pages 39 and 40 of this report.

2. Accounts receivable (millions of dollars)

	1981	1980
Customers	\$ 668	\$ 591
Other receivables	174	149
	<u>842</u>	<u>740</u>
Less allowance for doubtful accounts	12	10
	<u>\$ 830</u>	<u>\$ 730</u>

3. Inventories (millions of dollars)

First-in, first-out		
Crude oil and other source materials	\$ 211	\$ 216
Refined products	570	422
Chemicals	33	23
	<u>\$ 814</u>	<u>\$ 661</u>

4. Investments, long-term receivables and other assets (millions of dollars)

Investments in associated and other companies		
At cost:		
With quoted market value (based on closing prices at end of each year) 1981 — \$34 million, 1980 — \$38 million	\$ 3	\$ 3
At equity:		
Investment in joint venture companies, at cost plus equity in undistributed earnings	39	34
	<u>42</u>	<u>37</u>
Long-term receivables and other assets	69	70
	<u>\$ 111</u>	<u>\$ 107</u>

5. Property, plant and equipment (millions of dollars)

	Range of depreciation rates	Gross investment at cost	Accumulated depreciation depletion and amortization	Net investment 1981	Net investment 1980
Natural resources					
Exploration and production	(1)	\$1,302	\$ 486	\$ 816	\$ 606
Syncrude project (note 20)	(1)	321	29	292	288
In situ oil sands and coal	(2)	122	13	109	100
		<u>1,745</u>	<u>528</u>	<u>1,217</u>	<u>994</u>
Refined products					
Transportation	4%-10%	61	31	30	28
Refining	(3)	890	416	474	389
Marketing	2.5%-10%	425	184	241	220
		<u>1,376</u>	<u>631</u>	<u>745</u>	<u>637</u>
Chemicals	(3)	64	40	24	19
Other	2.5%-10%	137	24	113	109
		<u>\$3,322</u>	<u>\$1,223</u>	<u>\$2,099</u>	<u>\$1,759</u>

(1) Unit-of-production.

(2) No charges are made against earnings for the acquisition costs of these properties pending further evaluation and development; cost of equipment used in research and testing activities on these properties is depreciated over the life of the related activities.

(3) Processing units on unit-of-production basis; other items from 2.5 per cent to 10 per cent.

6. Short-term loans

The weighted average interest rates of short-term loans at December 31, 1981, 1980 and 1979, respectively were 16.57 per cent, 15.46 per cent, and 13.74 per cent. The weighted average interest rates of short-term loans during the periods ended December 31, 1981, 1980 and 1979, respectively were 18.53 per cent, 12.78 per cent and 11.97 per cent. The weighted average interest rates during a period are weighted by the aggregate outstanding at the end of each month.

During the periods the average aggregate short-term loans outstanding were: 1981, \$25 million; 1980, \$25 million, and 1979, \$18 million. The maximum aggregate amount outstanding at any month-end during 1981 was \$32 million; in 1980, \$36 million; and in 1979, \$25 million.

At December 31, 1981, the corporation had lines of credit available in the amount of \$310 million. These lines are renewed annually on May 31, and any borrowing under these lines of credit would bear interest at the prime rate.

7. Material transactions with related parties

Included in accounts receivable and accounts payable are amounts receivable from and owing to related parties of \$23 million and \$8 million, respectively, at December 31, 1981 and \$31 million and \$10 million, respectively, at December 31, 1980. These amounts arose through transactions in the normal course of business with Pétromont, an affiliate of the corporation, and Gulf Oil Corporation and its affiliates.

The more significant of the transactions the corporation has with Gulf Oil Corporation and its affiliates are for the purchase and sale of crude oil, refined products and petrochemicals; the receipt of technical and engineering services under research agreements; and hiring ocean tank vessels. The aggregate net purchases by the corporation in this connection, principally covering crude oil, were (*millions of dollars*): 1981 — \$334, 1980 — \$232, 1979 — \$515. See also note 12 with respect to a transaction with a subsidiary of Gulf Oil Corporation.

The more significant of the transactions the corporation has with Pétromont are for the purchase and sale of refined products and petrochemicals. The aggregate revenues in this connection, principally covering refined product sales, were (*millions of dollars*): 1981 — \$166, 1980 — \$40. The aggregate purchases, principally covering petrochemicals, were (*millions of dollars*): 1981 — \$38, 1980 — \$8.

8. Long-term debt (*millions of dollars*)

	1981	1980
5¾% Series B sinking fund debenture payable in 1982	\$ 1	\$ 2
5¼% Series C sinking fund debenture payable through 1982 (1)	4	4
7¾% Series E sinking fund debenture payable through 1988	27	28
8½% sinking fund debenture payable through 1989	3	3
8½% sinking fund debenture payable through 1990	3	3
8¾% loan re Syncrude payable 1984 through 1994 (2)	119	119
8¾% notes payable through 1997 (1)	148	149
15½% sinking fund debenture payable through 2011 (1)	237	—
15.35% notes payable through 1988 (1)	119	—
Notes payable through 1991 (3)	89	—
Other long-term obligations payable on varying dates	7	25
	<u>757</u>	<u>333</u>
Less instalments due within one year included in current liabilities	6	18
	<u>\$751</u>	<u>\$315</u>

(1) These are payable in U.S. dollars. The amounts outstanding in U.S. dollars at December 31, 1981 are: 5¼% Series C — \$4 million (1980 — \$4 million), 8¾% notes — \$125 million (1980 — \$125 million), 15½% debenture — \$200 million, 15.35% notes — \$100 million.

(2) On January 1, 1982 this loan was converted to an equity interest in the Syncrude project (see note 20).

(3) On November 2, 1981, the corporation entered into loan agreements with a syndicate of Japanese banks to borrow 26 billion Yen. Concurrently, the corporation entered into a deposit and loan agreement with a multinational financial institution which effectively converts the principal amount of the Yen loan into U.S. dollars in the amount of U.S. \$112 million. Of the principal, U.S. \$75 million was drawn prior to December 31, 1981 and U.S. \$37 million was drawn in January 1982. The aggregate interest cost under this arrangement varies depending on the exchange rate of the Yen and the U.S. dollar and at December 31, 1981, was 16.20%.

Approximate annual instalments of long-term debt due in the next five years are (*millions of dollars*): 1982 — \$6, 1983 — \$10, 1984 — \$11, 1985 — \$20, 1986 — \$54.

9. Deferred gas production revenue

Deferred gas production revenue represents payments received under take-or-pay gas contracts. These amounts will be included in revenue when the gas to which the payments relate is delivered at the option of the purchaser. These amounts are shown as long-term since, under current economic conditions, the gas due under the take-or-pay contracts is not expected to be delivered within the next few years.

10. Government incentive programs

The more significant government incentives earned by the corporation are payments under the Petroleum Incentive Program and investment tax credits. While the Petroleum Incentive Program has been in effect from January 1, 1981, the enabling legislation has not yet been passed by the federal government. At December 31, 1981, \$57 million of such grants were accrued in the accounts. Of this amount, \$48 million has been applied to reduce expenditures included in exploration and dry hole expenditures in the statement of earnings, with the balance of \$9 million having been applied to reduce capitalized expenditures included in property, plant and equipment in the statement of financial position.

Investment tax credits earned and applied to reduce property, plant and equipment were: 1981 — \$14 million, 1980 — \$9 million, 1979 — \$5 million.

11. Capital stock

Shares without nominal or par value

Authorized:

Common — unlimited number without nominal or par value;

Preferred — unlimited number without nominal or par value. The preferred shares shall rank in priority to the common shares and may be issued from time to time in series with the designation, rights, restrictions, conditions and limitations of each series as may be fixed before their issuance by the directors.

Issued:

Common — the following is an analysis of the capital stock account.

	Shares	Millions of Dollars
December 31, 1978	227,487,030	\$281
Add issued in respect of investment in Amalgamated Bonanza (note 12)	8,238,190	139
Less received and cancelled in respect of sale of investment in Amalgamated Bonanza (note 12)	(8,238,190)	(15)
December 31, 1979, 1980 and 1981	<u>227,487,030</u>	<u>\$405</u>

12. Amalgamated Bonanza

In 1979 the corporation entered into an agreement to acquire for sale to Transocean Gulf Oil Company (Transocean), a subsidiary of Gulf Oil Corporation, all the outstanding shares of Amalgamated Bonanza Petroleum Ltd. (Amalgamated Bonanza). The transaction resulted in the corporation issuing common shares and paying cash for the purchase of Amalgamated Bonanza and subsequently receiving from Transocean an equal number of common shares and an equal amount of cash for the sale of Amalgamated Bonanza. The common shares received were cancelled. The total consideration in respect of the shares received and cancelled amounted to \$139 million; of this amount, \$15 million represented the average paid-in value of the common shares and was deducted from capital stock; the balance of \$124 million was deducted from retained earnings. Transocean also paid the corporation an amount of \$5 million when the transaction was closed and this is included in 1980 earnings.

13. Crude oil and petroleum product transactions

Effective April 1, 1980, all of Gulf Canada's production from crown leases in Alberta is sold to the Alberta Petroleum Marketing Commission and is included in net sales and other operating revenues. Concurrently, the calculation for the elimination of inter-company profit on the company's own crude oil production in inventory was revised to take into account the changed patterns of crude oil trading and to eliminate only the profit on production from its freehold lands. These changes have no material effect on earnings for 1980 or 1981.

Crude oil sales not included in net sales and other operating revenues but applied to reduce the amounts for purchased crude oil were: 1981 — \$1,656 million, 1980 — \$1,552 million and 1979 — \$2,077 million.

Certain sales of petroleum products are made under purchase/sale agreements entered into with other refiners to minimize transportation costs. In 1981, these sales have not been included in net sales and other operating revenues, but have been applied to reduce the cost of the offsetting purchased products. Amounts for such petroleum product sales were: 1981 — \$423 million, 1980 — \$295 million, and 1979 — \$205 million. The 1980 and 1979 amounts, previously included in net sales and other operating revenues, have been reclassified to conform with the 1981 presentation.

14. Sale of certain petrochemical assets

On September 30, 1980 the corporation entered into agreements with Union Carbide Canada Limited and the Government of Quebec to form a major petrochemical consortium in the Montreal area, with operations commencing on October 1, 1980. This project involved the transfer by the corporation of certain assets for cash and an interest in the project which, under the agreements, will be 33.33 per cent by October, 1982. The transfer of assets resulted in the recognition of a gain in 1980 of \$17 million before income taxes (\$11 million after tax). The pre-tax gain is included in investment and sundry income. From September 30, 1980 the corporation's share of earnings from this investment has been included in investment and sundry income.

15. Taxes other than income taxes

<i>(millions of dollars)</i>	1981	1980	1979
Federal sales tax	\$169	\$120	\$ 97
Petroleum and gas revenue tax	71	—	—
Other	56	51	42
	<u>\$296</u>	<u>\$171</u>	<u>\$139</u>

16. Income tax

Total income tax expense as reflected in the statement of earnings represents the effective tax rate which differs from combined federal and provincial statutory tax rates. The main differences are shown in the table below:

<i>(millions of dollars)</i>	1981		1980		1979	
	Amount	%	Amount	%	Amount	%
Provision for income taxes at statutory rates	\$302	50	\$334	50	\$202	48
Add (deduct) the tax effect of —						
Inclusion in taxable income of crown royalties and other provincial payments	132	22	142	21	113	27
Resource allowance to partially offset inclusion of crown royalties	(108)	(18)	(118)	(18)	(90)	(22)
Inclusion in taxable income of petroleum and gas revenue tax	35	6	—	—	—	—
Depletion allowance earned by exploration and development expenditures	(29)	(5)	(38)	(6)	(42)	(10)
Frontier exploration allowance earned by frontier drilling expenditures (expired on March 31, 1980)	—	—	(7)	(1)	(22)	(5)
Inventory allowance to partially offset the effect of inflation	(10)	(2)	(8)	(1)	(6)	(1)
Manufacturing and processing incentive	(12)	(2)	(8)	(1)	(3)	(1)
Other	(9)	(1)	(7)	(1)	(5)	(1)
Provision for income taxes reflected in the statement of earnings	<u>\$301</u>	<u>50</u>	<u>\$290</u>	<u>43</u>	<u>\$147</u>	<u>35</u>

Income taxes include deferred income taxes of \$75 million in 1981, \$60 million in 1980 and \$28 million in 1979. These deferred income taxes are related primarily to the excess of capital cost allowances claimed for tax purposes over depreciation recorded in the accounts.

17. Gain on sale of portion of Syncrude interest

In 1979, the Alberta Energy Company Ltd. exercised its option to acquire 20 per cent of the interest of all the participants in the Syncrude project. This disposition by the corporation of a 3.35 per cent interest in the Syncrude project resulted in a gain of \$14 million after the deduction of income taxes of \$5 million.

18. Pension plans

The corporation has pension plans covering substantially all employees. The contributions by employees, together with those made by the corporation, are deposited with insurance companies and/or trustees according to the terms of the plan. Pensions at retirement are related to remuneration and years of service.

The amounts charged to earnings (including amounts paid to government pension plans and the amortization of prior service costs) were (*millions of dollars*): 1981 — \$55, 1980 — \$36, 1979 — \$28.

As of December 31, 1981, the actuarial present values of accumulated plan benefits using an actuarial rate of return of 5¼ per cent, were (*millions of dollars*):

Vested	\$ 337
Non-vested	134
Total	<u>\$ 471</u>

As of December 31, 1981, the plan's net assets, valued at cost, available for benefits amounted to \$281 million (at market — \$282 million).

The unamortized prior service costs at December 31, 1981 were approximately \$199 million which consisted of (*millions of dollars*):

Amounts not yet funded	\$ 190
Amount funded and deferred in the accounts	9
Total	<u>\$ 199</u>

The plans were further amended on January 1, 1982, to provide for increases in retirement benefits which increased the unfunded and unamortized prior service costs by \$7 million.

The unamortized costs of \$206 million will be charged to earnings over periods up to 15 years. The unfunded amount of \$197 million, of which approximately \$62 million represents the excess of the actuarially computed value of vested benefits over the assets of the plans, will be funded over periods up to 15 years.

19. Commitments, contingent liabilities and long-term obligations

The corporation has entered into contracts for the construction of a drilling system for use in the Beaufort Sea. Costs are estimated on a preliminary basis to be \$674 million, of which \$77 million has been expended to December 31, 1981. In addition, the corporation has commenced construction of an expansion of its Edmonton, Alberta, refinery. Total estimated cost is \$245 million of which \$98 million has been expended to December 31, 1981. Other commitments are in the ordinary course of business (for the acquisition, construction or rental of properties and the purchase of services) and are not material in relation to net assets.

The corporation does not have contingent liabilities or unconditional purchase obligations which are material in relation to net assets.

20. Alberta Government loan option

On October 28, 1981 the corporation was advised that pursuant to the terms and conditions of the 8½% loan re Syncrude, the Alberta Government was exercising the right of conversion, effective January 1, 1982, of the principal of the loan into an equity interest in the Syncrude project. The conversion will reduce the corporation's interest from 13.4 per cent to 9.03 per cent. The disposition of this interest will result in a reduction in long-term debt of \$119 million and a reduction in property, plant and equipment of approximately \$95 million. In addition, negotiations are in progress respecting the settlement of various working capital amounts. This transaction will result in a gain to the corporation which will be recorded in 1982.

21. Segment data

Business segment data for the corporation are shown in the following table. This information by segment is shown as though each segment were a separate business activity. Therefore, intersegment transfers of products are eliminated to reflect total corporation net revenues as reported in the consolidated statements of earnings.

The natural resources segment includes exploration, development and production activities related to crude oil, natural gas, natural gas liquids, oil sands and minerals. The refined products segment includes the manufacture, distribution and sale of petroleum products, as well as the business of Superior Propane Limited, a wholly-owned subsidiary. The chemicals segment includes the manufacture, distribution and sale of chemical products, as well as the corporation's share of the earnings from Pétromont.

General administration and other common costs have been allocated to each of the segments on an appropriate and consistent basis and income taxes have been calculated in accordance with the legislation applicable to each segment. Interest on long-term liabilities has not been allocated to the business segments and is shown separately net of tax.

SEGMENT DATA	1981	1980	1979
Revenues <i>(millions of dollars)</i>			
Natural resources			
Outside the enterprise	\$ 556	\$ 524	\$ 293
Intersegment revenues	539	512	551
Total natural resources	<u>1,095</u>	<u>1,036</u>	<u>844</u>
Refined products			
Outside the enterprise	3,820	2,925	2,240
Intersegment revenues	68	136	140
Total refined products	<u>3,888</u>	<u>3,061</u>	<u>2,380</u>
Chemicals			
Outside the enterprise	188	275	225
Intersegment revenues	—	24	29
Total chemicals	<u>188</u>	<u>299</u>	<u>254</u>
Corporate and other			
Outside the enterprise	133	111	95
Elimination of intersegment revenues	<u>(607)</u>	<u>(672)</u>	<u>(720)</u>
Total segment revenues	<u><u>\$4,697</u></u>	<u><u>\$3,835</u></u>	<u><u>\$2,853</u></u>
Earnings <i>(millions of dollars)</i>			
Natural resources			
Operating profits	\$ 228	\$ 344	\$ 313
General corporate expenses	(15)	(11)	(8)
Income taxes	(131)	(141)	(104)
Net segment earnings - natural resources	<u>82</u>	<u>192</u>	<u>201</u>
Refined products			
Operating profits	416	297	115
General corporate expenses	(56)	(48)	(35)
Income taxes	(160)	(113)	(30)
Net segment earnings — refined products	<u>200</u>	<u>136</u>	<u>50</u>
Chemicals			
Operating profits	30	67	44
Gain on sale of chemical assets	—	17	—
General corporate expenses	(6)	(6)	(4)
Income taxes	(11)	(35)	(18)
Net segment earnings — chemicals	<u>13</u>	<u>43</u>	<u>22</u>
Corporate and other operating profits	60	39	32
Income taxes	(26)	(14)	(10)
Net segment earnings — corporate and other	<u>34</u>	<u>25</u>	<u>22</u>
Eliminations			
Operating profits	(6)	(3)	(11)
Income taxes	3	1	4
Net eliminations	<u>(3)</u>	<u>(2)</u>	<u>(7)</u>
Net segment earnings	<u>326</u>	<u>394</u>	<u>288</u>
Gain on sale of portion of Syncrude interest (after tax)	—	—	14
Interest on long-term debt after tax	(27)	(14)	(14)
Net earnings for the year	<u><u>\$ 299</u></u>	<u><u>\$ 380</u></u>	<u><u>\$ 288</u></u>

Asset Data (millions of dollars)	1981	1980	1979
Assets employed at December 31			
Identifiable assets			
Natural resources	\$1,482	\$1,158	\$ 991
Refined products	2,231	1,925	1,759
Chemicals	100	80	102
Eliminations	(46)	(41)	(37)
Total identifiable assets	3,767	3,122	2,815
Corporate assets	701	570	480
Total assets	\$4,468	\$3,692	\$3,295
Capital and exploration expenditures			
Additions to property, plant and equipment			
Natural resources	\$ 297	\$ 214	\$ 128
Refined products	190	89	43
Chemicals	8	5	4
Corporate and other	10	18	69
Total	505	326	244
Exploration expenditures	277	246	166
Total capital and exploration expenditures	\$ 782	\$ 572	\$ 410
Depreciation, depletion and amortization			
Natural resources	\$ 73	\$ 66	\$ 52
Refined products	74	63	58
Chemicals	10	8	10
Corporate and other	5	4	3
Total depreciation, depletion and amortization	\$ 162	\$ 141	\$ 123

22. Additional information to the consolidated statement of earnings
(millions of dollars)

	1981	1980	1979
Research and development	\$ 75	\$ 45	\$ 31
Maintenance and repairs	146	136	106
Operating lease rentals	80	62	54
Interest on short-term loans	5	3	2

23. Reclassifications

Certain amounts for 1980 and 1979 have been reclassified to conform with the presentation adopted for 1981.

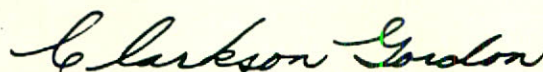
Auditors' Report

To the Shareholders of Gulf Canada Limited:

We have examined the consolidated statements of financial position of Gulf Canada Limited as at December 31, 1981 and 1980 and the consolidated statements of earnings and changes in financial position for the three years ended December 31, 1981. Our examinations were 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 corporation as at December 31, 1981 and 1980, and the results of its operations and the changes in its financial position for the three years ended December 31, 1981 in accordance with generally accepted accounting principles consistently applied.

Toronto, Canada
February 9, 1982



Clarkson Gordon
Chartered Accountants

**Quarterly
Summary
1981**

	1	2	3	4	Year
Financial (1) (millions of dollars)					
Net revenues (2)	1,087	1,108	1,244	1,258	4,697
Net earnings	91	69	97	42	299
Per common share (dollars per share)	0.40	0.30	0.43	0.18	1.31
Shareholders' Statistics (dollars per share)					
Equity per share — book value	8.76	8.95	9.27	9.34	9.34
Market value per share:					
Toronto Stock Exchange					
— High	27 ³ / ₈	29 ⁶ / ₈	31 ¹ / ₈	22 ² / ₈	31 ⁴ / ₈
— Low	22 ⁴ / ₈	23 ⁵ / ₈	16 ⁶ / ₈	18	16 ⁶ / ₈
— Close	25 ² / ₈	28 ⁷ / ₈	19 ⁵ / ₈	18 ⁴ / ₈	18 ⁴ / ₈
Dividends declared	0.11	0.11	0.11	0.11	0.44
Cash flow per share	0.64	0.54	0.67	0.44	2.29
Price/earnings ratio at quarter-end (3)	16	21	13	14	14
Shareholders at quarter-end (thousands)	44.1	43.6	41.8	41.0	41.0
Shares traded (millions)	12.4	11.9	13.3	7.7	45.3

**Quarterly
Summary
1980**

	1	2	3	4	Year
Financial (1) (millions of dollars)					
Net revenues (2)	856	888	963	1,128	3,835
Net earnings	91	95	100	94	380
Per common share (dollars per share)	0.40	0.42	0.44	0.41	1.67
Shareholders' Statistics (dollars per share)					
Equity per share — book value	7.53	7.83	8.16	8.47	8.47
Market value per share:					
Toronto Stock Exchange					
— High	38 ⁵ / ₈	35	36 ¹ / ₈	33 ⁵ / ₈	38 ⁵ / ₈
— Low	20 ¹ / ₈	25 ⁴ / ₈	26 ⁴ / ₈	19 ⁷ / ₈	19 ⁷ / ₈
— Close	25 ⁷ / ₈	33	28 ¹ / ₈	23 ³ / ₈	23 ³ / ₈
Dividends declared	0.08	0.11	0.11	0.11	0.41
Cash flow per share	0.59	0.64	0.55	0.60	2.38
Price/earnings ratio at quarter-end (3)	16	20	16	14	14
Shareholders at quarter-end (thousands)	21.8	30.5	35.0	39.9	39.9
Shares traded (millions)	24.6	15.3	12.3	17.4	69.6

- (1) Quarterly information is unaudited.
(2) Restated.
(3) Closing share price divided by annualized earnings.

Five Year Financial Summary

STATEMENT OF EARNINGS

(millions of dollars)

Revenues

	1981	1980	1979	1978	1977
Natural gas	\$ 289	\$ 304	\$ 264	\$ 220	\$ 207
Crude oil and natural gas liquids	494	407	173	144	139
Refined Products					
— gasolines	1,395	1,051	841	706	633
— middle distillates	978	763	601	504	464
— other	899	631	477	428	409
Chemicals	209	269	230	160	137
Other operating revenue	319	310	216	195	181
Net sales and other operating revenues	4,583	3,735	2,802	2,357	2,170
Investment and sundry income	114	100	51	33	35
Net revenues	4,697	3,835	2,853	2,390	2,205

Expenses

Purchased crude oil, products and merchandise	2,274	1,704	1,252	1,139	1,044
Operating expenses	530	446	372	266	228
Exploration and dry hole expenditures	277	246	166	115	111
Selling and administrative expenses	507	431	355	328	300
Taxes other than income taxes	296	171	139	135	125
Income taxes	301	290	147	105	110
Depreciation, depletion and amortization	162	141	123	89	82
Interest on long-term debt	51	26	25	26	21
	4,398	3,455	2,579	2,203	2,021
Earnings for the year before Syncrude gain	299	380	274	187	184
Gain on sale of Syncrude interest					
(after deduction of \$5 million income taxes)	—	—	14	—	—

Earnings for the year

	\$ 299	\$ 380	\$ 288	\$ 187	\$ 184
Per Share (dollars)					
Earnings	\$ 1.31	\$ 1.67	\$ 1.27	\$ 0.82	\$ 0.81
Dividends declared	\$ 0.44	\$ 0.41	\$ 0.30	\$ 0.23	\$ 0.22

STATEMENT OF FINANCIAL POSITION

(millions of dollars)

Current assets	\$2,258	\$1,826	\$1,601	\$1,117	\$1,207
Current liabilities	980	936	903	626	672
Working capital	1,278	890	698	491	535
Investments and other assets	111	107	87	81	70
Net property, plant and equipment	2,099	1,759	1,607	1,567	1,296
Capital employed	3,488	2,756	2,392	2,139	1,901
Long-term debt	751	315	333	350	333
Deferred gas production revenue	93	72	37	13	—
Deferred income taxes	519	443	383	357	284
Shareholders' equity (net assets)	\$2,125	\$1,926	\$1,639	\$1,419	\$1,284
Total assets	\$4,468	\$3,692	\$3,295	\$2,765	\$2,573

Five Year Financial Summary

STATEMENT OF CHANGES IN FINANCIAL POSITION

(millions of dollars)

Sources of Funds

	1981	1980	1979	1978	1977
From operations	\$ 520	\$ 542	\$ 410	\$ 349	\$ 332
Add exploration expenditures	277	246	166	115	111
Funds from operations before exploration expenditures	797	788	576	464	443
Sales of properties and investments	20	56	21	21	17
Sale of portion of Syncrude	—	—	91	—	—
Long-term debt	450	—	2	34	180
Deferred gas production revenue	21	35	24	13	—
	<u>1,288</u>	<u>879</u>	<u>714</u>	<u>532</u>	<u>640</u>

Use of Funds

Capital and exploration expenditures	782	572	410	485	494
Reduction of long-term debt	9	18	18	37	31
Dividends	100	93	68	52	49
Advance funding of pensions	—	—	10	—	—
Other (net)	9	4	1	2	3
	<u>900</u>	<u>687</u>	<u>507</u>	<u>576</u>	<u>577</u>
Increase (decrease) in working capital	388	192	207	(44)	63
Less changes in non-cash working capital	245	116	53	(70)	23
Increase in cash and short-term investments less short-term loans	<u>\$ 143</u>	<u>\$ 76</u>	<u>\$ 154</u>	<u>\$ 26</u>	<u>\$ 40</u>

Financial Ratios

	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
Return on capital employed (1)	10.4%	15.3%	13.3%	9.9%	11.4%	11.9%	14.5%	14.7%	10.1%	7.1%
Return on shareholders' equity (2)	14.8%	21.3%	18.8%	13.8%	15.1%	15.3%	18.3%	19.3%	13.1%	8.9%
Current ratio (3)	2.3	2.0	1.8	1.8	1.8	1.9	2.1	1.8	2.4	2.6
Long-term debt to total capitalization (4)	26.1%	14.1%	16.9%	19.8%	20.6%	12.7%	10.1%	10.3%	19.4%	20.8%
Earnings coverage of interest (5)	13x	27x	18x	12x	15x	37x	36x	25x	12x	7x
Reinvestment ratio (6)	129%	87%	80%	89%	117%	88%	123%	75%	54%	67%

Definitions

- (1) Return on capital employed: Net after-tax earnings plus after-tax interest expense as a percentage of average capital employed for the year. Capital employed is calculated by deducting current liabilities from total assets.
- (2) Return on shareholders' equity: Net after-tax earnings as a percentage of average shareholders' equity for the year. Shareholders' equity is composed of the book value of common shares.
- (3) Current ratio: Ratio of total current assets to total current liabilities.
- (4) Long-term debt to total capitalization: Long-term debt as a percentage of long-term debt and shareholders' equity.
- (5) Earnings coverage of interest: Pre-tax earnings and pre-tax interest expense as a multiple of pre-tax interest expense.
- (6) Reinvestment ratio: The total of capital and exploration expenditures and the increase or decrease in non-cash working capital as a per cent of funds from operations before exploration expenditures.

Five Year Operations Review	1981		1980		1979		1978		1977	
Crude oil and natural gas liquids (thousands of cubic metres)										
Gross production — year	6,567		7,552		7,858		6,492		6,682	
— per day	18.0		20.6		21.5		17.8		18.3	
Net production — year	4,468		5,061		5,379		4,334		4,426	
— per day	12.2		13.8		14.8		11.9		12.1	
(Excludes synthetic crude production)										
Natural gas (millions of cubic metres)										
Gross production — year	3,066		3,275		3,996		3,839		4,283	
— per day	8.4		8.9		11.0		10.5		11.7	
Net production — year	2,178		2,307		2,854		2,781		3,103	
— per day	6.0		6.3		7.8		7.6		8.5	
Wells completed										
Exploratory	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net
— Oil	117	63	79	41	17	9	4	2	1	1
— Gas	79	35	48	27	24	13	14	7	19	12
— Dry	170	85	103	55	85	42	41	21	30	20
Development										
— Oil	112	48	96	36	43	11	41	17	38	22
— Gas	11	2	14	1	25	7	54	25	67	41
— Dry	13	12	14	7	3	1	21	17	18	12
Total	502	245	354	167	197	83	175	89	173	108
Wells (bore holes) capable of producing at year-end										
	6,804	1,727	6,649	1,631	6,646	1,578	6,588	1,546	6,546	1,499
NET PROVED RESERVES										
Crude oil and natural gas liquids (millions of cubic metres)										
Net reserves January 1	35.6		38.6		40.7		47.1			
Additions from drilling	0.5		0.2		0.1		—			
Revisions of previous estimate	1.4		1.9		1.3		(2.9)			
Added through improved recovery	0.3		—		1.9		0.5		N/A*	
Production	(4.4)		(5.1)		(5.4)		(4.0)			
Net reserves December 31	33.4		35.6		38.6		40.7			
(Excludes Syncrude reserves)										
Natural gas (billions of cubic metres)										
Net reserves January 1	50.4		51.9		60.6		59.2			
Additions from drilling	1.2		1.2		2.4		1.1			
Revisions of previous estimate	(0.6)		(0.4)		(8.3)		3.4		N/A*	
Production	(2.2)		(2.3)		(2.8)		(3.1)			
Net reserves December 31	48.8		50.4		51.9		60.6			

*Not available.

Five Year Operations Review

	1981	1980	1979	1978	1977
Crude oil processed					
<i>(thousands of cubic metres per day)</i>					
Point Tupper, Nova Scotia	—	2.9	9.0	7.5	10.5
Montreal East, Quebec	10.4	10.3	9.7	10.3	11.5
Clarkson, Ontario	10.2	10.8	9.3	10.0	11.1
Moose Jaw, Saskatchewan	0.5	0.5	1.2	0.6	1.0
Calgary, Alberta	1.6	0.9	1.4	1.2	1.2
Edmonton, Alberta	11.8	12.5	12.3	11.7	12.1
Kamloops, British Columbia	1.5	1.5	1.4	1.4	1.4
Port Moody, British Columbia	5.8	6.1	6.1	5.2	5.1
Processed by others for Gulf Canada	1.7	0.6	0.2	—	—
Total	43.5	46.1	50.6	47.9	53.9
Per cent of daily capacity utilized	89%	88%	82%	78%	89%
Sales volumes <i>(cubic metres per day)</i>					
Natural gas <i>(millions)</i>	8.6	9.3	11.3	10.9	12.1
Crude oil <i>(thousands)</i>	4.7	4.5	—	—	—
Natural gas liquids <i>(thousands)</i>	4.8	4.8	4.8	4.3	4.6
Refined Products					
<i>(thousands of cubic metres per day)</i>					
Gasolines	14.5	15.7	15.6	15.3	15.4
Middle distillates	11.1	12.2	12.4	11.9	12.5
Other	10.6	10.1	10.1	11.3	13.0
Chemicals <i>(millions of kilograms per day)</i>					
Petrochemicals	.6	1.3	1.4	1.3	1.2
Sulphur	1.2	1.0	.8	.9	.9
Other	.7	.7	.9	.7	.9
Retail outlets at year-end	2,589	2,716	2,932	3,178	3,759
Employees at year-end	11,367	10,914	10,400	10,604	11,149
Total wages and salaries <i>(millions)</i>	\$ 332	\$ 275	\$ 240	\$ 222	\$ 207

Directors



J.D. Allan (1979) [2]
President, Stelco Inc., Toronto, Ontario. Director: C-I-L Inc.; Royal Trustco Limited; Rockwell International of Canada Ltd.



E.H. Crawford (1974) [4]
President, The Canada Life Assurance Company, Toronto, Ontario. Director: Canadian Imperial Bank of Commerce; Canadian Enterprise Development Corporation Limited; Interprovincial Pipe Line Ltd.; Lakehead Pipe Line Company, Inc.; Moore Corporation Limited



E.F. Crease (1974) [2]
Chairman of the Board, Alfred J. Bell & Grant Limited, Halifax, Nova Scotia. Director: Canada Permanent Mortgage Corporation; Canada Permanent Trust Company



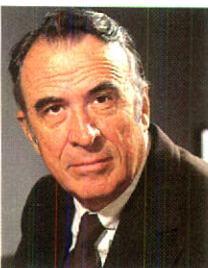
J.E. Lee (1980)
Chairman of the Board and Chief Executive Officer, Gulf Oil Corporation, Pittsburgh, Pennsylvania. Director: Joy Manufacturing Company; Pittsburgh National Bank; Pittsburgh National Corporation



D.S.R. Leighton (1977) [2]
President, Banff Centre for Continuing Education, Banff, Alberta. Director: Nabisco Brands Limited; John Wiley and Sons Limited; CAMCO INC.; G.S.W. Inc.; Rio Algom Limited; Lornex Mining Corporation Inc.; Scott's Hospitality, Inc.; Resources for the Future, Canadian Film Development Corporation



J.C. Phillips, Q.C. (1978) [1,4]
Chairman of the Board, Gulf Canada Limited, Toronto, Ontario. Director: Bank of Nova Scotia; Canada Life Assurance Company



Gérard Plourde (1965) [1,3]
Chairman of the Board, UAP Inc., Montreal, Quebec. Director: Alliance Mutual Life Insurance Company; Bell Canada; The Molson Companies Limited; Northern Telecom Ltd.; Rolland Inc.; Steinberg Inc.; The Toronto-Dominion Bank



Alfred Powis (1970) [1,3]
Chairman of the Board and President, Noranda Mines Limited, Toronto, Ontario. Director: Brunswick Smelting and Mining Corporation Limited; Canadian Imperial Bank of Commerce; MacMillan Bloedel Limited; Ford Motor Company of Canada, Limited; Brenda Mines Limited; Placer Development Limited; Simpsons-Sears Limited; Sun Life Assurance Company of Canada; Kerr Addison Mines Limited



Kathleen M. Richardson (1977) [4]
Director, James Richardson & Sons, Limited, Winnipeg, Manitoba. Director: Sun Life Assurance Company of Canada



R.G. Rogers (1969) [2]
Chairman of the Board, Crown Zellerbach Canada Limited, Vancouver, British Columbia. Director: Canadian Imperial Bank of Commerce; Crown Zellerbach International, Inc.; Genstar Corporation; Hilton Canada Inc.; Rockwell International of Canada Ltd.



C.D. Shepard (1960)
Ottawa, Ontario



J.L. Stoik (1976) [1]
President and Chief Executive Officer, Gulf Canada Limited, Toronto, Ontario. Director: The Toronto-Dominion Bank



W.H. Young (1973) [1,3]
President, The Hamilton Group Limited, Burlington, Ontario. Director: Stelco Inc.; Harding Carpets Limited; Gore Mutual Insurance Company, National Trust Company Limited

() Year appointed Director
[1] Member, Executive Committee
[2] Member, Audit Committee
[3] Member, Compensation Committee
[4] Member, Pension Fund Investment Committee

Corporate Information

Gulf Canada Limited

Head Office

130 Adelaide Street West,
Toronto, Ontario
M5H 3R6

Directors

J.D. Allan, Toronto
E.H. Crawford, Toronto
E.F. Crease, Halifax
James E. Lee, Pittsburgh
Dr. D.S.R. Leighton, Banff
J.C. Phillips, Q.C., Toronto
G rard Plourde, Montreal
Alfred Powis, Toronto
Kathleen M. Richardson,
Winnipeg
R.G. Rogers, Vancouver
C.D. Shepard, Ottawa
J.L. Stoik, Toronto
W.H. Young, Hamilton

Secretary

W.M. Winterton

Director Emeritus

Beverly Matthews, Q.C.,
Toronto

Officers

J.L. Stoik, President and
Chief Executive Officer
J.C. Phillips, Q.C.,
Chairman of the Board
R.C. Beal, Vice-President
Retired, September 1, 1981
W.H. Burkhiser, Vice-
President and Treasurer
Transferred to Gulf Oil
Corporation, Pittsburgh,
February 1, 1982
L.G. Dodd, Vice-President
and Controller
Appointed Vice-President —
Finance, February 10, 1982
R.E. Harris,
Vice-President
Retired, January 1, 1982
C.G. Walker,
Vice-President
Retired, January 1, 1982
E.E. Walker,
Vice-President, Planning
and Development.
W.M. Winterton, Vice-
President, General
Counsel and Secretary
A.R. Sello, Controller
Appointed Controller,
February 10, 1982
J.R. Tysall, Treasurer
Appointed Treasurer,
February 10, 1982

Accounting and Data

Processing Centres

Montreal, Quebec;
Toronto, Ontario;
Calgary, Alberta.

Research and
Development Centre
Sheridan Park, Ontario.

Principal Subsidiaries and Divisions (wholly-owned)

Gulf Canada Resources Inc.

Head Office:
Gulf Canada Square,
401 — 9th Ave. S.W.,
Calgary, Alberta T2P 2H7

S.K. McWalter, President
R.H. Carlyle, Senior
Vice-President
M. Bregazzi,
Vice-President
C.K. Caldwell,
Vice-President
D.R. Motyka,
Vice-President
T.B. Simms, Vice-President
and Treasurer
G.A. Holland, Secretary

Exploration/Production Offices

Calgary, Edmonton and
Stettler, Alberta; Estevan,
Saskatchewan.

Operated Gas Plants

Baptiste, Bashaw West,
Buffalo Lake North,
Gilby, Hanna, Morrin-
Ghost Pine, Nevis, North
Sibbald, Pincher Creek,
Rimbey, Strachan and
Swalwell, Alberta.

Gulf Canada Products

Company (A division of
Gulf Canada Limited)
Head Office: 800 Bay Street
Toronto, Ontario M5S 1Y8

R.T. Brown, President
J.D. DeGrandis, Senior
Vice-President
W.H. Griffin, Senior
Vice-President
C.W. Fitzwilliam,
Vice-President

W.J. Hindson,
Vice-President
T. Matsushita,
Vice-President
R.J. Mayo,
Vice-President
M.P. Peterson,
Vice-President
K.C. Reeves,
Vice-President
G.E. Bell, Secretary

Marketing Region Offices
Montreal, Quebec;
Toronto, Ontario;
Calgary, Alberta.

Chemicals

Plants: Montreal East
and Shawinigan, Quebec.

Operated Pipelines

Alberta Products,
Gulf Alberta,
Gulf Saskatchewan,
Rimbey, Saskatoon,
Shawinigan and Valley.

Refineries

Montreal East, Quebec;
Clarkson, Ontario;
Edmonton, Alberta;
Kamloops and Port
Moody, British Columbia.

Asphalt Plants

Moose Jaw, Saskatchewan;
Calgary, Alberta.

Servico Limited

Head Office: Quebec,
Quebec.
President: M.P. Peterson

Commercial Alcohols Limited

Head Office: Montreal,
Quebec.
President: W.A. Rogers

Superior Propane Limited

1865 Leslie Street,
Don Mills, Ontario
M3B 2M4
President: A.L. Goerk

Principal Investments not Consolidated

Company	Percentage ownership
Alberta Products Pipe Line Ltd.	40.00
Canada Systems Group Limited	33.33
Interprovincial Pipe Line Limited	7.01
Montreal Pipe Line Company Limited	16.00
Peace Pipe Line Ltd.	12.70
P�tromont Inc. (partnership — ultimate interest)	33.33
Rimbey Pipe Line Co. Ltd.	40.40
Trans Mountain Pipe Line Company Ltd.	8.57
Trans-Northern Pipelines Inc.	33.33

Shareholders' Information

Annual Meeting

The annual meeting of shareholders will be held in the Ballroom of the Royal York Hotel, Toronto, at 2:00 p.m. EST, Thursday, April 22, 1982.

Rapport annuel

Le présent rapport annuel est disponible en français. Pour en obtenir un exemplaire, veuillez vous adresser à l'adresse suivante:

Secteur des communications financières,
Service des Affaires publiques,
Gulf Canada Limitée,
130, rue Adelaide ouest,
Toronto (Ontario) M5H 3R6

Auditors

Clarkson Gordon,
Chartered Accountants,
P.O. Box 251
Toronto-Dominion Centre
Toronto, Ontario, M5K 1J7

Common Stock

Gulf Canada has a total of 227,487,030 issued common shares, of which 60 per cent are controlled by Gulf Oil Corporation, Pittsburgh, PA.

Gulf Canada's common shares are listed and traded on the Toronto, Montreal, Vancouver and Alberta stock exchanges in Canada, and are traded on the American Stock Exchange, where the corporation has unlisted trading privileges.

The stock market symbol is GOC.

Share Register

Changes of address or inquiries regarding shares or dividends should be directed to: Share Register Dept., Gulf Canada Limited, 477 Mount Pleasant Rd., Toronto, Ontario, M4S 2M1

Registrar

Canada Permanent Trust Company,
20 Eglinton Ave. West,
Toronto, Ontario, M4R 2E2

Transfer Agents

Canada Permanent Trust Company — Vancouver, Calgary, Regina, Winnipeg, Toronto, Montreal, Saint John, N.B.; Charlottetown, Halifax, St. John's, Nfld.

Registrar and Transfer Company,
55 Water Street,
New York, N.Y. 10041
U.S.A.

Dividend Payment

Quarterly dividend cheques are mailed out a few days prior to the payable dates which are the first of January, April, July and October. The quarterly dividend was 11 cents per share for each quarter of 1981.

U.S. Clearing Facilities for Dividend Cheques

Agency of The Bank Of Nova Scotia,
67 Wall Street,
New York, N.Y. 10005
U.S.A.

10K Report Available

A copy of the 1981 Report on Form 10K filed with the United States Securities and Exchange Commission is available.

Requests should be directed to:

Public Affairs Department,
Gulf Canada Limited,
130 Adelaide St. West,
Toronto, Ontario, M5H 3R6

Additional Information

Further information about the corporation and its operating divisions is available from the following offices:

Gulf Canada Limited
Public Affairs Department,
130 Adelaide St. West
Toronto, Ontario, M5H 3R6
(Telephone: 416-869-8600)

Gulf Canada Products
Company
Public Affairs Department,
800 Bay Street,
Toronto, Ontario M5S 1Y8
(Telephone: 416-924-4141)

Gulf Canada Resources Inc.,
Public Affairs Department,
Gulf Canada Square,
401 — 9th Ave. S.W.,
Calgary, Alberta T2P 2H7
(Telephone: 403-233-4000)

Metric Measure

Adoption of Metric

In 1979 the Canadian petroleum industry began using the International System of Units, commonly called the metric system, to report figures related to length, area, volume and mass. All figures, graphs and tables in this year's Annual Report are in metric measure.

*International System of Units (SI) conversion factors used by Canadian Petroleum Association in its statistical handbook effective January 1, 1979.

Table of Basic Conversion Factors*

Traditional to metric	Metric to traditional
Length	
1 mile = 1.609 kilometres (km)	1 km = 0.621 mile
1 foot = 0.305 metre (m)	1 m = 3.281 feet
Area	
1 acre = 0.405 hectare (ha)	1 ha = 2.471 acres
Volume	
1 gallon (Can.) = 4.546 litres (L)	1L = 0.220 gallon (Can.)
1 barrel = 0.159 cubic metre (m ³)	1 m ³ = 6.290 barrels
1 MCF = 28.174 cubic metres (m ³) (natural gas)	1 m ³ = 0.035 MCF
Mass	
1 pound = 0.454 kilogram (kg)	1 kg = 2.205 pounds
1 long ton = 1.016 tonnes (t) (2,240 pounds)	1 t = 0.984 long ton
1 short ton = 0.907 tonne (t) (2,000 pounds)	1 t = 1.102 short tons

