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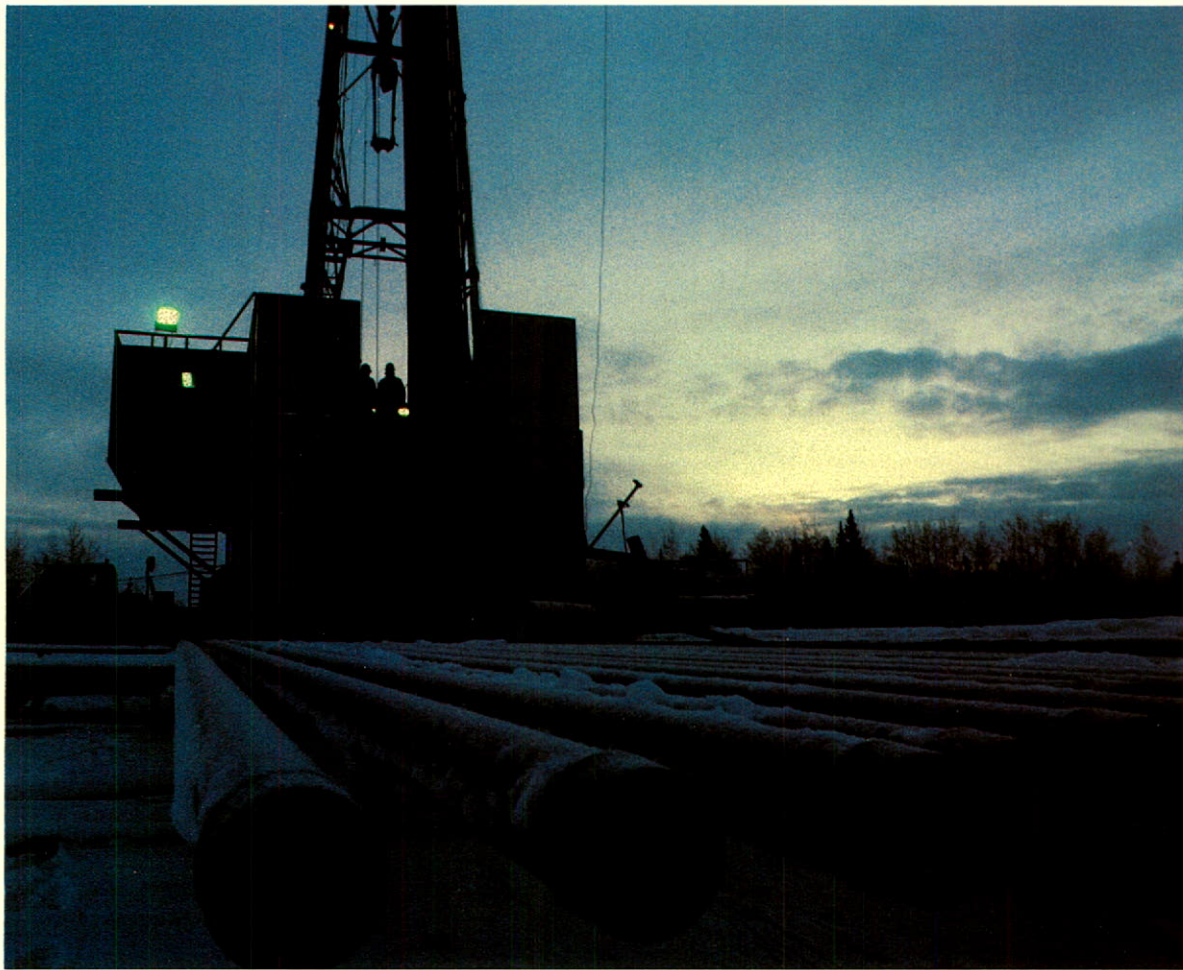
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MCGILL UNIVERSITY

Canterra Energy Ltd.

1981 ANNUAL REPORT



Corporate Profile



Canterra Energy Ltd. is the new company resulting from the acquisition in 1981 of Aquitaine Company of Canada Ltd. by Canada Development Corporation (CDC) from Société Nationale Elf Aquitaine (SNEA) of France and from a separate arrangement with SNEA by which CDC acquired all the Canadian assets of Texasgulf Inc.

Canterra now controls all the assets of the former Aquitaine company, the Canadian oil, gas and sulphur assets of Texasgulf Inc., and CDC Oil & Gas Limited, a company CDC formed through the purchase in 1976 of selected Canadian assets of Tenneco Inc.

This makes Canterra the fourth largest Canadian petroleum company and the 11th largest petroleum company in Canada. It is engaged in oil and gas exploration in Canada and the United States. It produces oil, gas liquids, gas and sulphur in Alberta, oil and gas in British Columbia, oil in Saskatchewan, and oil, gas and coal in the United States. The Company is the largest supplier and marketer of sulphur in Canada. Canterra is also active in frontier exploration in Canada's offshore areas—the Beaufort Sea, Davis Strait, Labrador Shelf and the Scotian Slope.

Note: In this report we address the exploration and production activities of Aquitaine, CDC Oil and Gas and Texasgulf for the full year of 1981 under the name of Canterra.



Executive Report

Canterra Energy Ltd., a new presence in the Canadian petroleum industry, is pleased to present its first annual report.

In mid-1981, Canada Development Corporation (CDC) and Elf Aquitaine entered into several transactions by which the two groups re-arranged their respective assets in the oil and mining business in North America. As a result of these transactions, CDC acquired the shares of Aquitaine Company of Canada and the Canadian assets of Texasgulf Inc. while Elf Aquitaine acquired the assets of Texasgulf in the United States and other foreign countries.

The Canterra Group, wholly-owned by CDC, is the combination of Aquitaine Company of Canada, CDC Oil & Gas and the oil, gas and sulphur operations of Texasgulf in Canada.

Canterra has the size, the diversity of assets and the skills

to be a major and leading force in the Canadian petroleum industry.

With close to \$3 billion of assets, Canterra is the fourth largest Canadian-owned petroleum company. Canterra is present in all facets of the industry: exploration in the three petroleum provinces of western Canada and in the frontier offshore plays, as well as conventional, tertiary and heavy oil production, and in-situ recovery from the oilsands. Canterra is the largest supplier and marketer of sulphur in Canada, controlling directly or indirectly 20 per cent of the world's trade in sulphur.

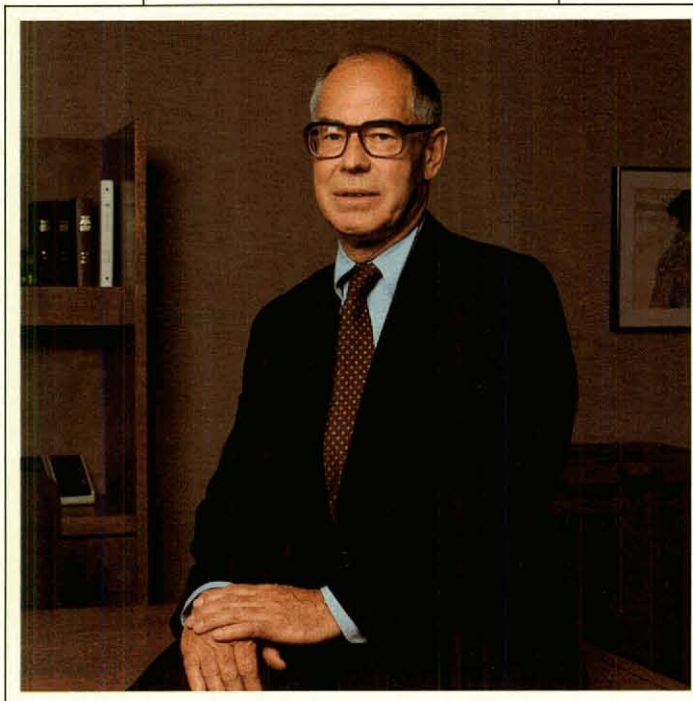
In the United States, Canterra is also active in oil and gas exploration and production and in the coal industry.

We strongly believe that Canada has excellent hydrocarbon potential: the western Canada basins have still only been drilled at one tenth the density

of their United States counterparts, and the frontier areas are significant plays by any world comparison.

Canterra is well positioned to contribute to the development of these resources and to take advantage of many growth opportunities.

Canterra is also the only major diversified petroleum company with 100 per cent Canadian ownership which operates under the rules and conditions of the private sector and competes in the market place. As such, we are accountable for the profitability of our operations. Yet we also feel we have a particular responsibility to express to governments, in a constructive manner, our opinion on the regimes that would be appropriate to better realize the potential of the energy resources of Canada. In this respect we have been, and are presently, making such expressions to the governments.



Jack O'Brien—Chairman of the Board

Strategic Objectives

For the coming years we have established a number of strategic objectives:

- Optimize and improve profitability of existing reserves and plants through increased production of new oil, tertiary recovery schemes, development of shut-in gas reserves and processing other producers' gas through Canterra's gas plants.
- Renew conventional reserves through exploration in western Canada to maintain over the medium- and long-term the steady and safe sources of cash flow necessary to engage in more risky and longer-term projects.

- To overcome the present gas surplus difficulties in western Canada, investigate new gas sales opportunities such as direct sales to the United States or supplies to petrochemical and fertilizer plants.
- Consolidate leadership in sour gas production and processing and sulphur marketing.
- Increase and diversify exploration in offshore Canada, particularly in areas where early production of hydrocarbons can be expected, such as offshore Newfoundland, Nova Scotia and in the Beaufort Sea, and operate in a variety of offshore environments.
- Prepare for the eventual commercial application of heavy oil and tarsands technologies through direct experience of operating in-situ pilot projects.

Recent Performance and Short-Term Outlook

In 1981, the financial performance of each company within the Canterra Group was adversely affected by a number of factors, several of which were common to the whole industry. These included depressed markets for natural gas, a reduction of crude oil sales as a result of the Alberta cutbacks, reduced demand for domestic production resulting from the economic slowdown and more energy conservation. In addition, record high interest rates and the introduction of the various energy, pricing and taxation agreements significantly eroded profit margins. Canterra, however, fared better than the average of the industry mainly due to the significant improvement of sulphur prices.



Bernard Isautier—President and Chief Executive Officer



On the operations side, Canterra recorded a substantial increase of gas reserves more than offsetting production and a downward revision in conventional oil reserves.

Progress was made on studies of possible additional oil recovery in Rainbow from tertiary production. One project will be implemented early in 1982 bringing to Canterra additional production at world prices and reduced royalties. Projects to produce new gas reserves proceeded according to schedule and will result in increased sales volumes in future years.

Favourable results were achieved in frontier exploration with a substantial gas discovery at North Bjarni, and for the first time on the Labrador Shelf, free oil was recovered at the North Leif well.

The 1982 financial outlook is influenced by several conflicting factors: on the negative side, the industry will see reduced markets as a result of the general economic slowdown. Canterra expects to operate below capacity for all products: oil, gas, coal and sulphur. Canterra will also carry high interest charges

as a result of the acquisition debt of Aquitaine that Canterra will assume until the equity market improves. On the positive side, we expect favourable adjustments to the pricing and taxation regime of the oil industry by both the Federal and Provincial Governments.

Overall, Canterra expects to generate between \$350 and \$400 million of cash flow before interest.

Canterra will sustain an aggressive capital expenditures program partially financed by the exploration grants of the Federal and Provincial Governments: the largest increase is being allocated to offshore exploration. Reflecting the tight economic situation, our investment criteria have become more restrictive, and special emphasis is put on improved productivity and costs savings.

Canterra's Employees

Our greatest immediate challenge in the creation of Canterra was to integrate three teams different in origin, style and size. After careful studies and extensive discussions, the new organization of Canterra was put into place on November 1st, 1981. We have tried to make the best use of the experience and competence which existed in each entity and which complemented that of the other groups so exceptionally well. We also aimed to give to everyone a stimulating and challenging position in a larger company with greater scope and potential.

Virtually all the vice-presidents and managers of the three former entities have remained with Canterra; the initial organization is intact and working efficiently. The turn-over rate for all the personnel of Canterra is lower than experienced in the past by each former entity.

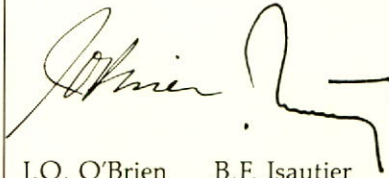
We are pleased to say that Canterra has a very enthusiastic, hard working and dedicated staff, whom we want to thank for their patience, tolerance and loyalty in this period of change and adjustment.

Our Directors

Following the resignation of the Elf Aquitaine Directors on the Board of Aquitaine Company of Canada and their subsequent replacement by CDC representatives, we were particularly gratified that the outside Directors of Aquitaine and CDC Oil & Gas agreed to continue to serve on the Board of Canterra.

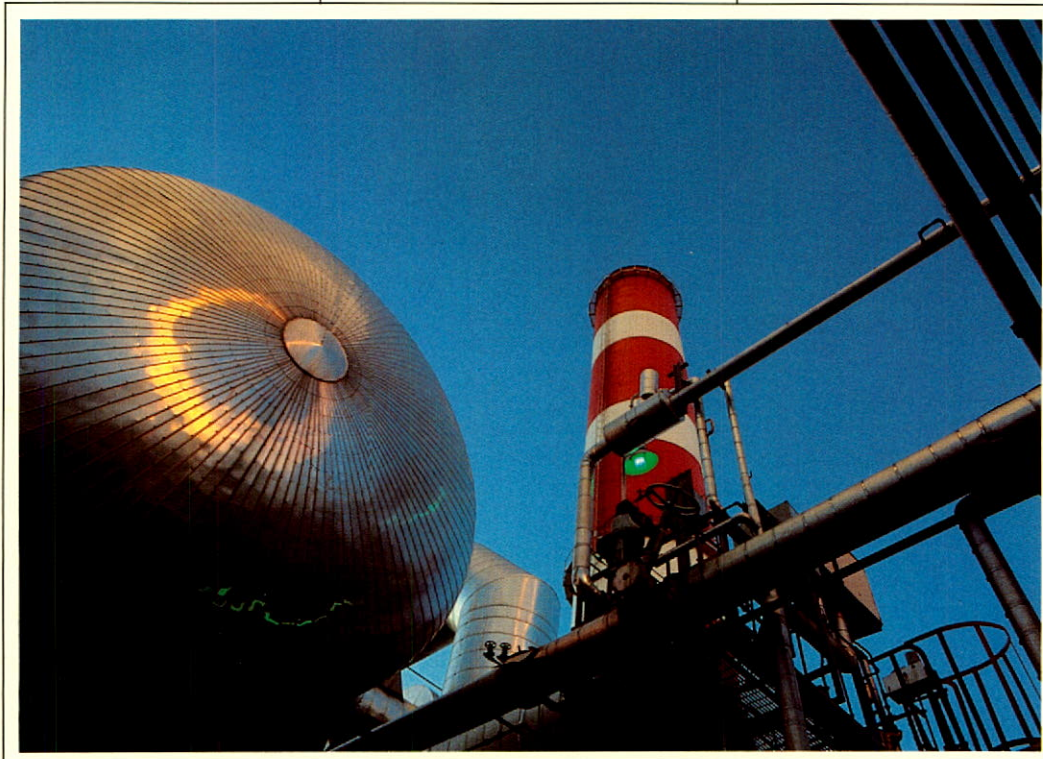
We look forward to a continuous, confident and rewarding association.

We want to express our sincere appreciation to the directors of Elf Aquitaine, J. Bonnet de la Tour, J.Y. Chereau, F. Morel and G. Rutman and J.N. Turvey and M.E. Jones, directors of CDC Oil & Gas, for their outstanding contribution as directors.

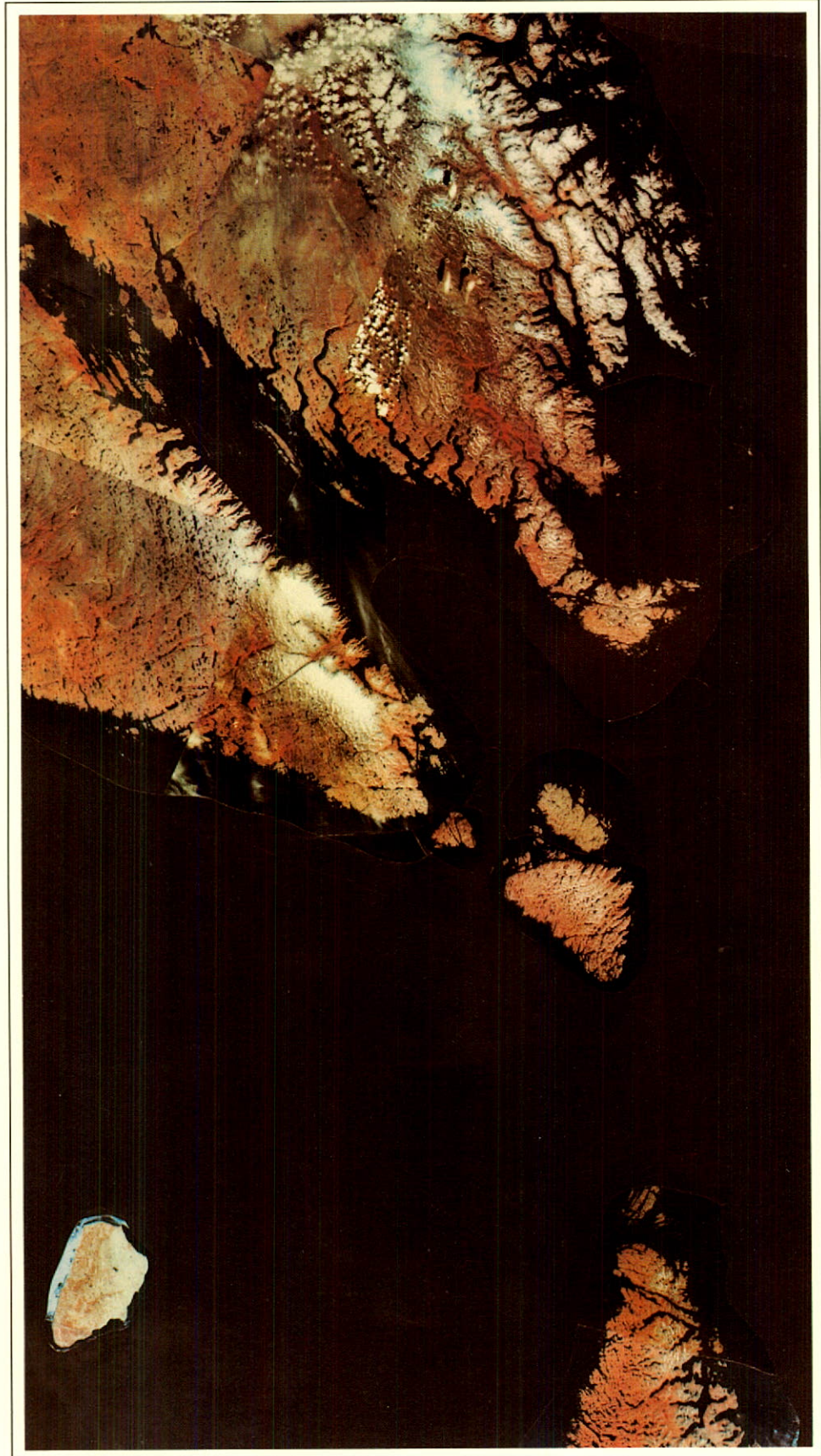


J.O. O'Brien
Chairman of
the Board

B.F. Isautier
President and
Chief Executive
Officer



Exploration



A Landsat image shows the southeast tip of Baffin Island from 927 kilometres up. Canterra has offshore acreage in this area.

Summary

The Canterra Group of Companies was active in oil and gas exploration in many areas of Canada and the United States in 1981. The total number of wells drilled was less than in 1980 which was a general reflection of the state of the oil industry. Canterra had its share of successes with exploration in the frontier areas particularly producing some encouraging results which will benefit the company in the longer term.

The group invested over \$205 million in oil and gas exploration activities in 1981, approximately 62 per cent of which was spent in western Canada and 21 per cent in Canadian frontier areas. These were increases of seven and 20 per cent respectively from the previous year. The remaining 17 per cent went to exploration in the United States.

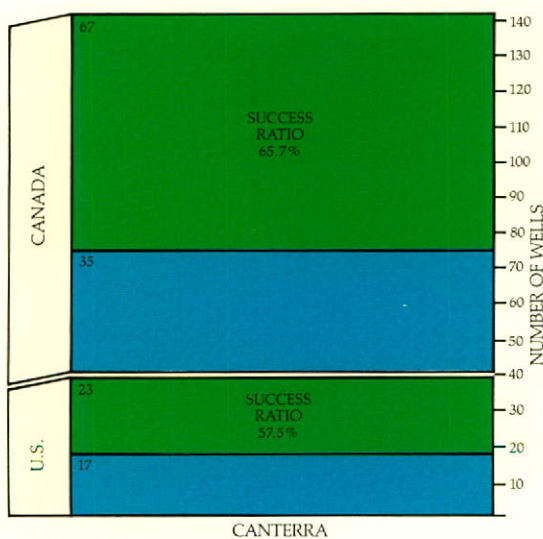
Canterra participated in 169 exploratory wells in Canada and the United States, with a success ratio of 63 per cent. This program resulted in 37 oil wells (net 10.8) and 53 gas wells (net 19.6); 52 were dry (net 21.7) and 27 were either drilling or suspended at year-end.

An additional 42 exploratory tests were drilled at no cost to the Company with a variable royalty interest being retained. This program resulted in 13 oil wells and eight gas wells.

The merger of the three companies has resulted in the rapid achievement of the blend of exploration activities that was being steadily sought and achieved by each individual company. Thus, Texasgulf's concentration in heavy oil, CDCOG's strong position in the Shekilie Basin and Peace River Arch areas, where there are conventional oil prospects, and

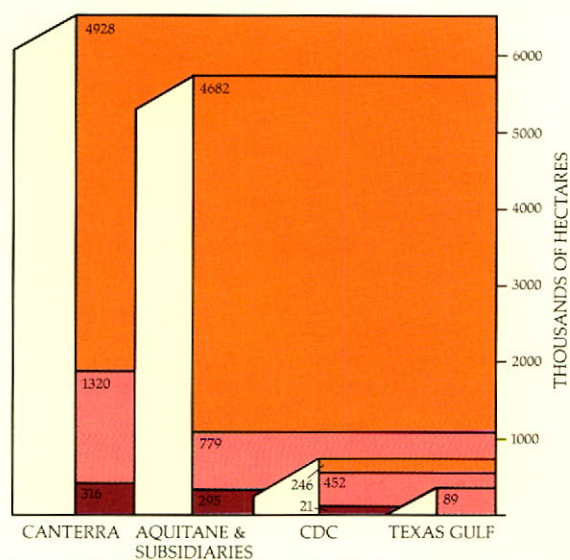
Aquitaine's large holdings in western Canada and frontier regions will enable Canterra to participate strongly in those areas.

The following graphs provide a summary of the gross working interest exploratory tests completed in 1981 by the Canterra Group, and the net land holdings and the contribution brought by each component company of the Group.



1981 EXPLORATORY DRILLING

(GROSS TESTS - COMPLETED)
 SUCCESSFUL ■ UNSUCCESSFUL ■



1981 NET LAND HOLDINGS

(PRODUCING AND NON-PRODUCING-PROPERTIES)
 (THOUSANDS OF HECTARES)
 FRONTIER ■ WESTERN CANADA ■ U.S. ■

Western Canada



ALBERTA

1981 exploration in Alberta was directed primarily towards new oil prospects in the Shekilie-Amber Basin and the Peace River Arch areas of Alberta and oil and gas prospects in the Alberta deep basin and foothills.

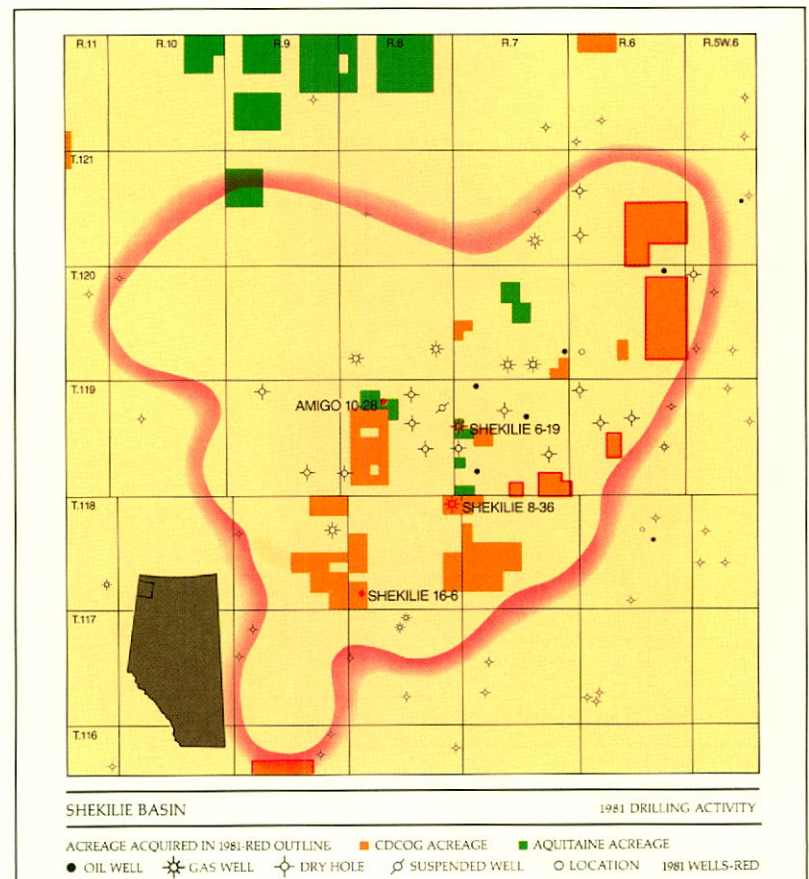
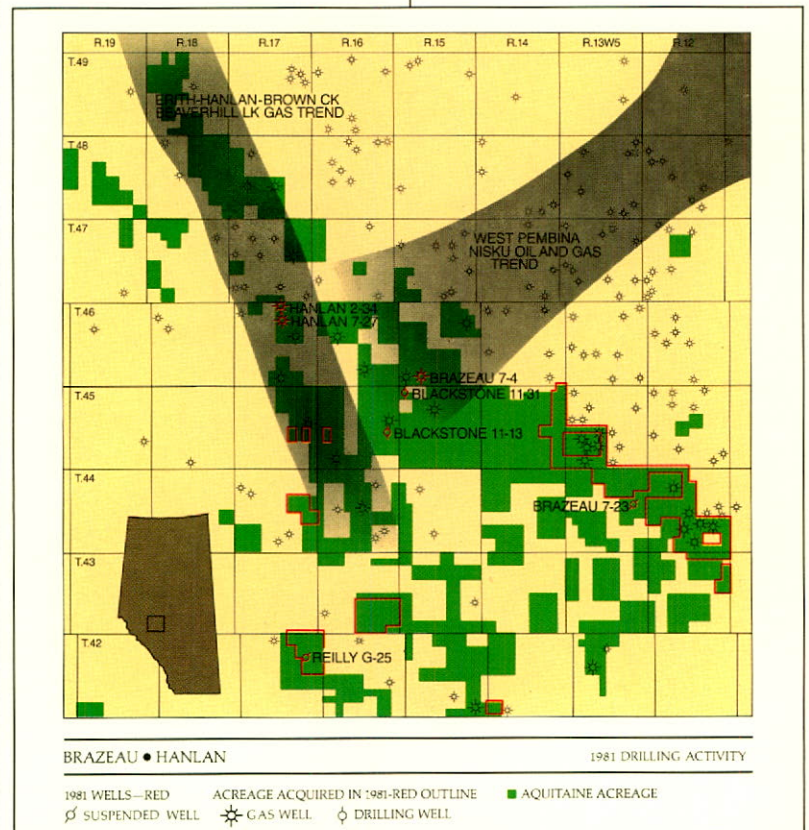
Seventy-seven exploratory tests were completed in the province in 1981, resulting in six oil wells, 48 gas wells and 29 abandonments. One additional test was suspended and a further 13 tests were drilling at year-end.

In the **Shekilie-Amber Basin**, five wells were drilled on the basis of seismic anomalies which resulted in the discovery of two Keg River reef oil pools and one Sulphur Point gas pool. CDCOG et al Shekilie 16-6-118-8 W6M (33.3 per cent), was completed and indicated a production capacity of 72 cubic metres per day.

Aquitaine Natomas Amigo 10-28-119-8 W6M (50 per cent) was cased as a Keg River oil well and later production tested at the rate of 200 cubic metres of oil per day.

The acquisition of several leasehold properties and the 670 kilometres of new seismic data will result in several exploratory drilling locations in 1982.

The **Peace River Arch** is an important new oil prospecting area. Seven gross exploration wells (net 3.2) were drilled resulting in six dry holes and one new oil well. The oil well, CDCOG Union Slave 5-14-84-14 W5M (50 per cent), tested 18 cubic metres of oil per day from a Devonian reservoir. This well was followed up by three successful development wells and further development is expected to continued into 1982.



In western Alberta at **Hanlan**, two wells, 7-34-46-17 W5M (75 per cent) and 7-27-46-17 W5M (100 per cent) were successfully completed as gas wells with deliverabilities of 390 506 and 77 415 cubic metres per day respectively.

Successful Nisku gas discoveries were made at **Brazeau** 7-4-46-15 W5M (100 per cent) and at **Edson** where two successful wells were completed. The 6-17-51-18 W5M (100 per cent) well flowed gas at 227 000 cubic metres per day and a four kilometre step-out, Edson 3-12-51-19 W5M (75 per cent), is waiting to be completed.

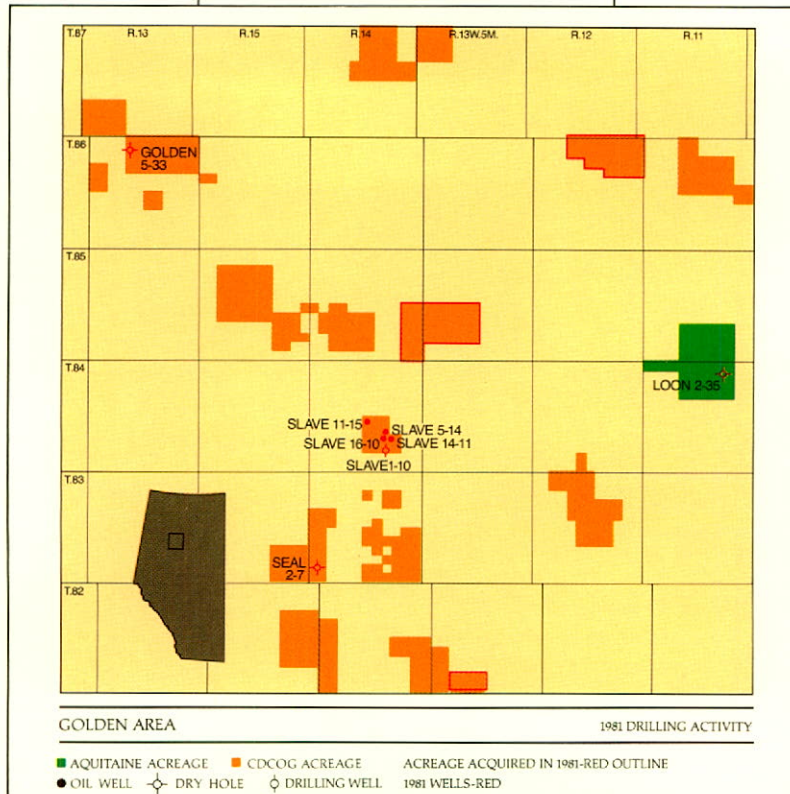
In the **Alberta Foothills**, the North Reilly well has been suspended with non-commercial gas pay being present in the Mississippian with additional gas reserves probably being present in fractured Ireton shales.

CDCOG Ricinus 5-5-35-9 W5M (33.3 per cent) drilled in the foothills west of **Hinton-Obed** reached a total depth of 3 912 metres with indications of gas in the Elkton and Bazal Blairmore. This well will be completion tested early in 1982.

In the **Deep Basin** area, 14 delineation wells resulted in eight gas wells, two oil wells and one abandonment. The three remaining wells were drilling at year end.

A three-well program in the **Cranberry** area of northern Alberta was successful in establishing additional gas reserves.

Exploration for shallow gas in the **Wandering River-Mink Lake** areas of northeastern Alberta involved a total of 18 exploratory or delineation tests. The program resulted in the completion of 14 gas wells.





SASKATCHEWAN

Exploration in the province was limited to further delineation and extension of heavy oil reserves which had been established by previous exploratory drilling. Six exploratory wells were drilled in the **Meota-Edam** areas in 1981 resulting in two Colony oil wells at 7-10-47-18 W3M and 2-14-47-18 W3M and a Spinney Hill gas well at B11-28-48-18 W3M.

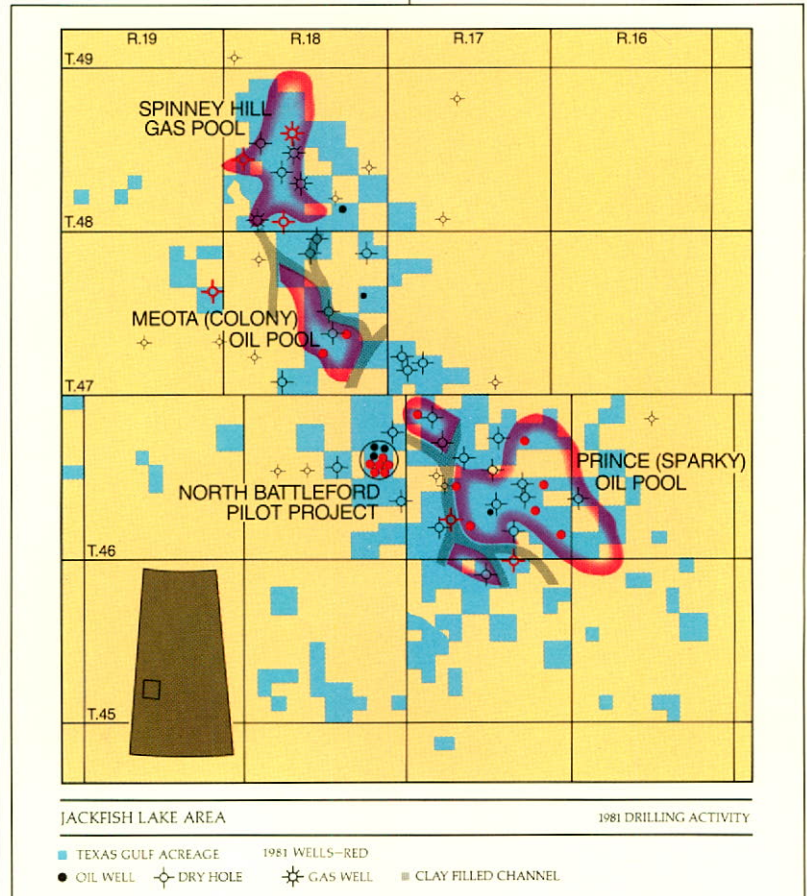
Nine tests were drilled in the **Prince** area in 1981 resulting in seven potential Sparky oil wells and two abandonments.

Prior to drilling in both the Prince and Meota-Edam areas, a seismic program of 290 kilometres was completed over the prospective areas to define both regional and local structures.

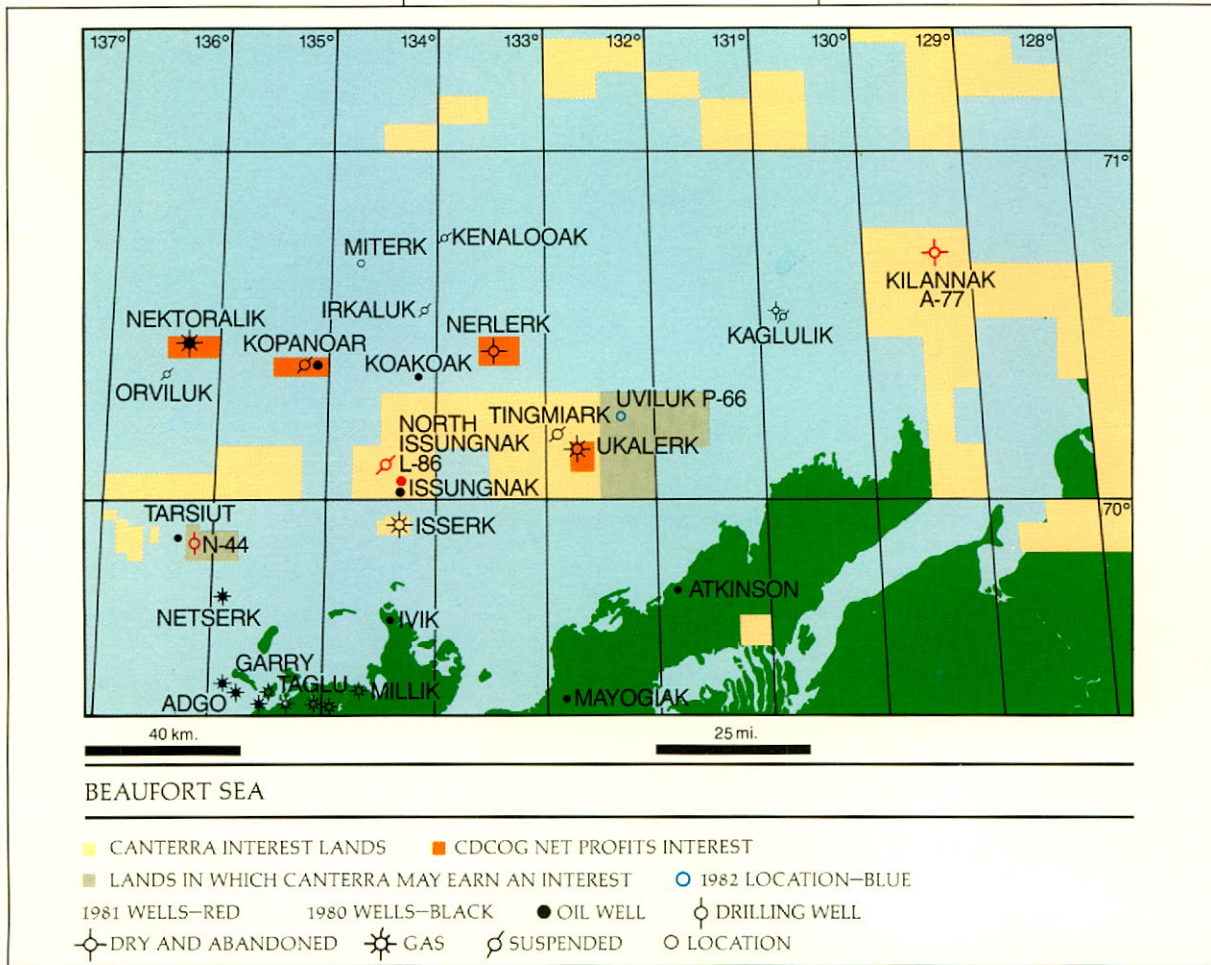
BRITISH COLUMBIA

Drilling activity was sharply curtailed in 1981 in British Columbia with Canterra participating in only four exploratory tests. A deep test in the **Sloane Creek** area was cased and is currently being evaluated, and a few miles to the south, a new deep wildcat had commenced drilling just prior to year end.

A small oil and gas discovery was made at **Siphon**. Due to early spring break-up, drilling was suspended at **Akue** but will resume in 1982.



Canada Offshore



Beaufort Sea

A second well was drilled from the Issungnak Island during the winter 1980-1981. Issungnak #2 0-61 was drilled directionally to the north and reached a total depth of 4 460 metres in April (vertical depth 4 140 metres). Extensive testing took place and the well was finally abandoned in August. Combined oil flow was 1 030 cubic metres per day and gas flowed at a combined rate of 1.4 million cubic metres per day. The production is from 13 individual sands with a cumulative thickness of 20 metres of net oil sand and 85 metres of net gas sand. Additional reserves were proven up in the pool by the drilling of this well and much additional information was gained. There are no

immediate plans for further drilling at Issungnak. Canterra holds a 15.15 per cent interest in the 6 383 hectare block on which #2 0-61 was drilled as well as a 30 per cent interest in surrounding permit lands. Two wells, Kilannak A-77 (120 kilometres east of Issungnak), drilled on Canterra acreage under a farmout arrangement, and North Issungnak L-86 (ten kilometres north of the Issungnak island on 30 per cent Canterra interest acreage), failed to find sufficient encouragement and were respectively abandoned and suspended. The Uviluk P-66 well will be drilled over the 1982-1983 winter from an island, the main body of which was constructed during

the summer of 1981. Canterra pays 5.2 per cent of the cost of this operation to earn a 2.6 per cent interest under a farmin agreement involving a 105 000 hectare block of permits. The island's location is 20 kilometres northeast of Ukalerk. The Company has entered into a farmin agreement to acquire a three per cent interest in the Tarsiut N-44 well and surrounding acreage. The well is a step-out six kilometres east from the Tarsiut A-25 oil discovery, but it will also attempt to probe objective horizons below the level of oil sand in the original well.



Labrador Shelf

Three drillships were under contract in 1981 to the Labrador Group, in which Canterra holds 16.5 per cent interest. The Group entered into negotiations with the Federal Department of Energy, Mines and Resources to obtain Special Renewal Permits (SRP) on its holdings of more than eight million hectares. The approval process on these SRP's was hampered by the pending passage of Bill C-48 through Parliament. The Group will now continue its negotiations based on the concept of exploration agreements with the Crown.

The Bjarni O-82 gas well, originally drilled in 1979, was tested; its 99 metres of net pay zone flowed at rates up to 560 thousand cubic metres of gas per day, accompanied by condensate at 123 cubic metres per day.

On a separate structure, seven kilometres north of the Bjarni pool, the North Bjarni F-06 well was drilled to a total depth of 2 812 metres and suspended in October. While testing had to be postponed until 1982, the well is an indicated gas discovery with 177 metres of net pay as determined from wireline logs; it could substantially contribute to gas reserves in the area.

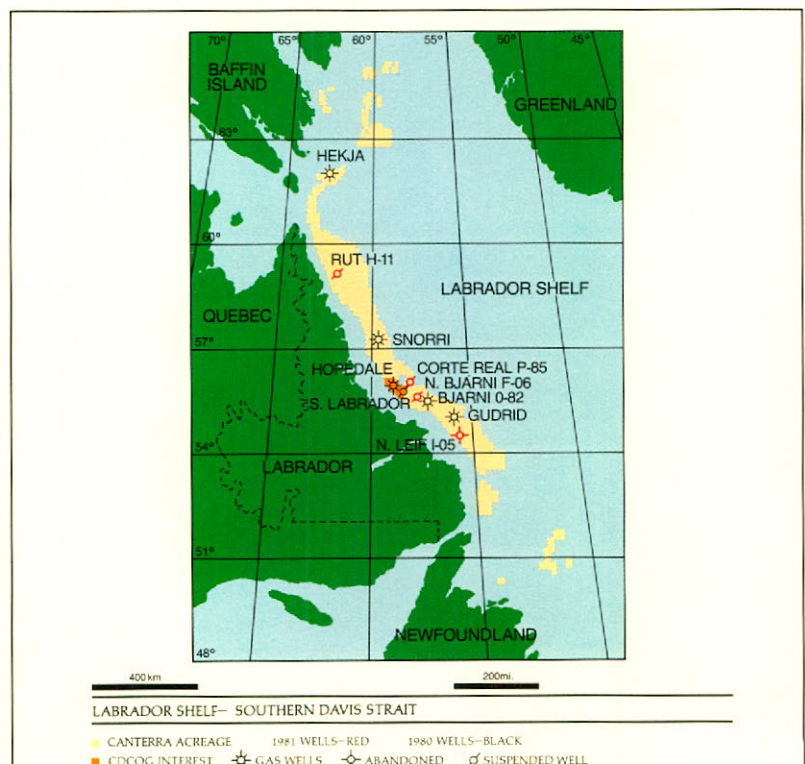
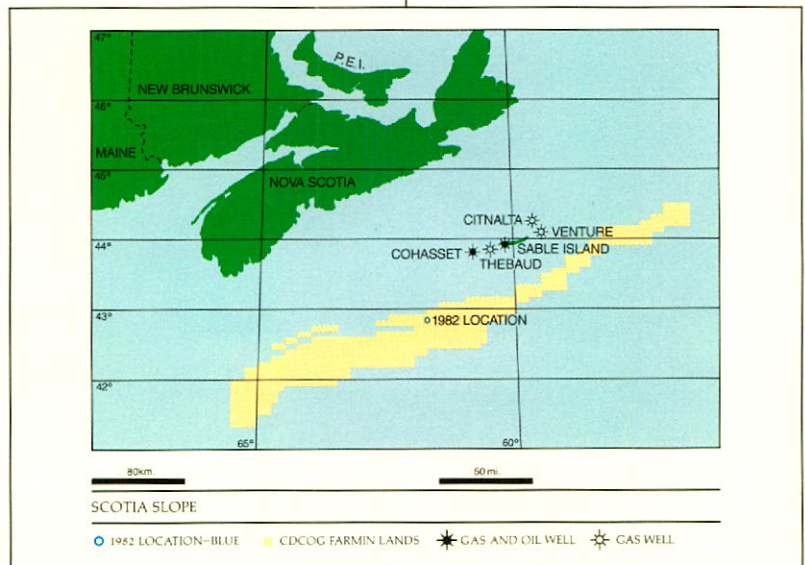
The North Leif I-05 well was abandoned in October at a depth of 2 513 metres. Although not a commercial discovery, this well provided much encouragement by recovering the first free oil (3.6 cubic metres) on the Labrador Shelf.

Two wells, Rut H-11 and Corte Real P-85, were started during the year. Both are deep tests, which will be re-entered in the summer of 1982 and drilled to their projected depths.

NOVA SCOTIA

Under a farmout agreement Canterra and another Canadian company will fund Shell Explorer's share of the cost of seismic and four wells to earn half of the farmor's interest on the 3.8 million hectare block of permits 200 kilometres south of Halifax. Shell Explorer has a 50

per cent interest in most of these lands. During 1981, seismic, environmental and site specific surveys were carried out in preparation for the first well to be drilled in approximately 1 500 metres of water in 1982.



New Federal Land Legislation

The Administration of Canada Lands through the introduction and passage of Bill C-48 will dramatically alter the tempo of exploration and land ownership in the near future.

The notable features of Bill C-48 are:

- Current permit holders must renegotiate their holdings into a new land tenure format called Exploration Agreements.
- Exploration Agreements will have a term in the order of two to six years, during which at least 50 per cent of the acreage must be relinquished for resale by the Crown.
- The Federal Government reserves the right to a 25 per cent backin to any discovery.
- In order to place a field on production at least 50 per cent Canadian content must be present within the corporate group applying for a production licence.
- Exploration Agreement awards will require the drilling of well(s), seismic and commitments to Canada industrial benefits and an increase in Canadian content of the land ownership.

The resultant effect on industry will be a tendency to either drill the acreage or relinquish it at a much earlier date than previously, resulting in a marked increase in land turnover, farmouts and federal land sales. Canterra, being a 100 per cent Canadian company, will be well positioned to diversify its land position through federal land sales and farmouts and will be eligible for \$.80 per dollar petroleum incentive grants.

CANTERRA LAND HOLDINGS

At year end 1981 and 1980 (Thousands of hectares)

	1981		1980**	
	Gross	Net	Gross	Net
Alberta	2 948	957	2 396	822
British Columbia	681	287	632	275
Saskatchewan	134	73	145	90
Manitoba	1*	1*	1	1
Quebec	9	2	9	2
Arctic	2 516	421	3 973	1 697
Beaufort	2559	1 590	2 571	1 618
N.W.T	445	291	556	316
East Coast	11 334	2 626	11 468	2 708
Alaska	2	1	2	1
Other United States	2 208	315	497	156
Total Oil & Gas	22 837	6 564	22 250	7 686
Geothermal Leases	15	12	14	11
Coal				
Pennsylvania	16	16	16	16

* Less than 1 000 hectares

** For comparative purposes only

CONVERSION TABLE

The petroleum industry in Canada officially converted to the international System of Units (SI) for measuring and reporting 1979 January 01. For this reason we are pleased to include the following conversion table.

To Convert From	To	Multiply by
metres (m)	feet (well depths)	3.2808
kilometres (km)	miles (distance)	0.6214
hectares (ha)	acres (land)	2.47
cubic metres (m ³)	thousand cubic feet (mcf)(gas)	0.035494
cubic metres (m ³)	barrels (oil)	6.29
tonnes (t)	long tons (sulphur)	0.9842
tonnes (t)	short tons (coal)	1.10231

United States



Forty exploratory tests were drilled and completed in the United States in 1981. This program resulted in 19 oil wells and four gas wells. In addition, 27 carried interest wells were drilled at no cost to the Company which resulted in ten oil wells and one gas well.

In several cases, new oil discoveries will be restricted to single well pools as extension tests failed to extend the producing zone.

A total of 1 760 kilometres of new seismic data were acquired during the year with more than 75 per cent of the seismic program being operated by Canterra. An additional 1 230

kilometres of existing seismic data were also purchased.

Approximately 40 500 net hectares of new land acquisitions were made in Montana and North Dakota during 1981. The most significant of these acquisitions were 8 760 net hectares in **McHenry County**, North Dakota in a possible southern extension of a Mississippian Frobisher trend and 4 210 net hectares in the **Knife River** area of southeast North Dakota. Acquisitions were also made in west Texas.

MONTANA

The Hatle 33-24-54 test (50 per cent) initially flowed oil at 14.5 cubic metres per day from the Mississippian Bakken. An extension test could not confirm this pool, but it was successfully completed in the Mission Canyon.

NORTH DAKOTA

A discovery made at **Crooked Creek**, in which the Company has a 50 per cent working interest, was completed in the Fryburg with an initial potential of 19 cubic metres per day. The **East Zenith 27-140-98** test (9.4 per cent) flowed initially at 60 cubic metres per day from the Ordovician Red River. A successful extension test to the **Corral Creek** field 1-29-147-95 was completed with an initial potential of 37.8 cubic metres per day.

Several Red River discoveries were made in the central part of the Williston Basin; these included the **Thurlow 1-13** well in which the Company has a 50 per cent interest, which was completed for 100 cubic metres of oil per day. This new discovery was officially named the **Lonesome Field**. An extension to the discovery well is presently drilling in the adjoining section. On the north side of the Missouri River, the **Stockyard Creek Field** was discovered by the Samedan Minerals #1-13 test in which Canterra had a 12.5 per cent interest. The well was completed with an initial flow of 212 cubic metres of oil per day.

Several exploratory extension and deeper zone tests were drilled in the **TR-Whiskey Joe** field area during the year with the identification of new oil producing zones in the Duperow

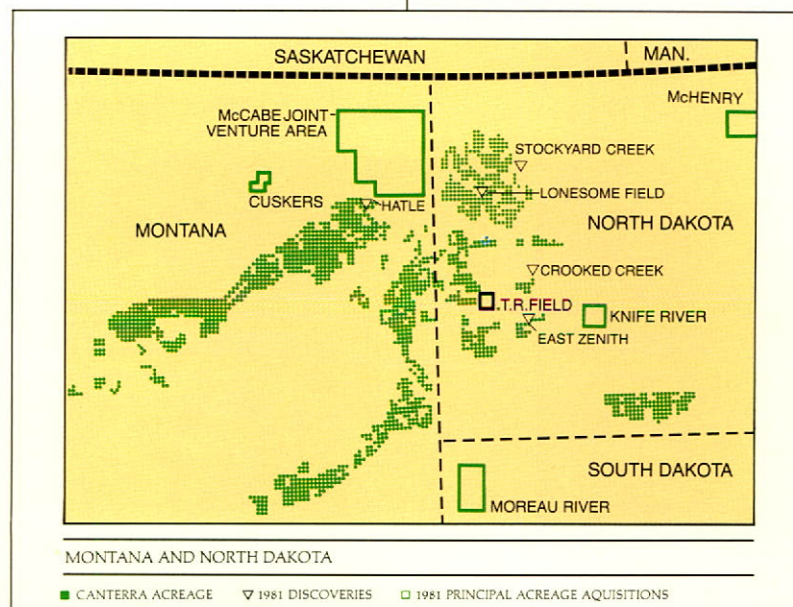
and Midale. As a result, 24 exploratory and development tests were drilled with 23 of these tests being completed as oil producers. The development of these two adjoining fields will be completed in 1982.

WEST TEXAS

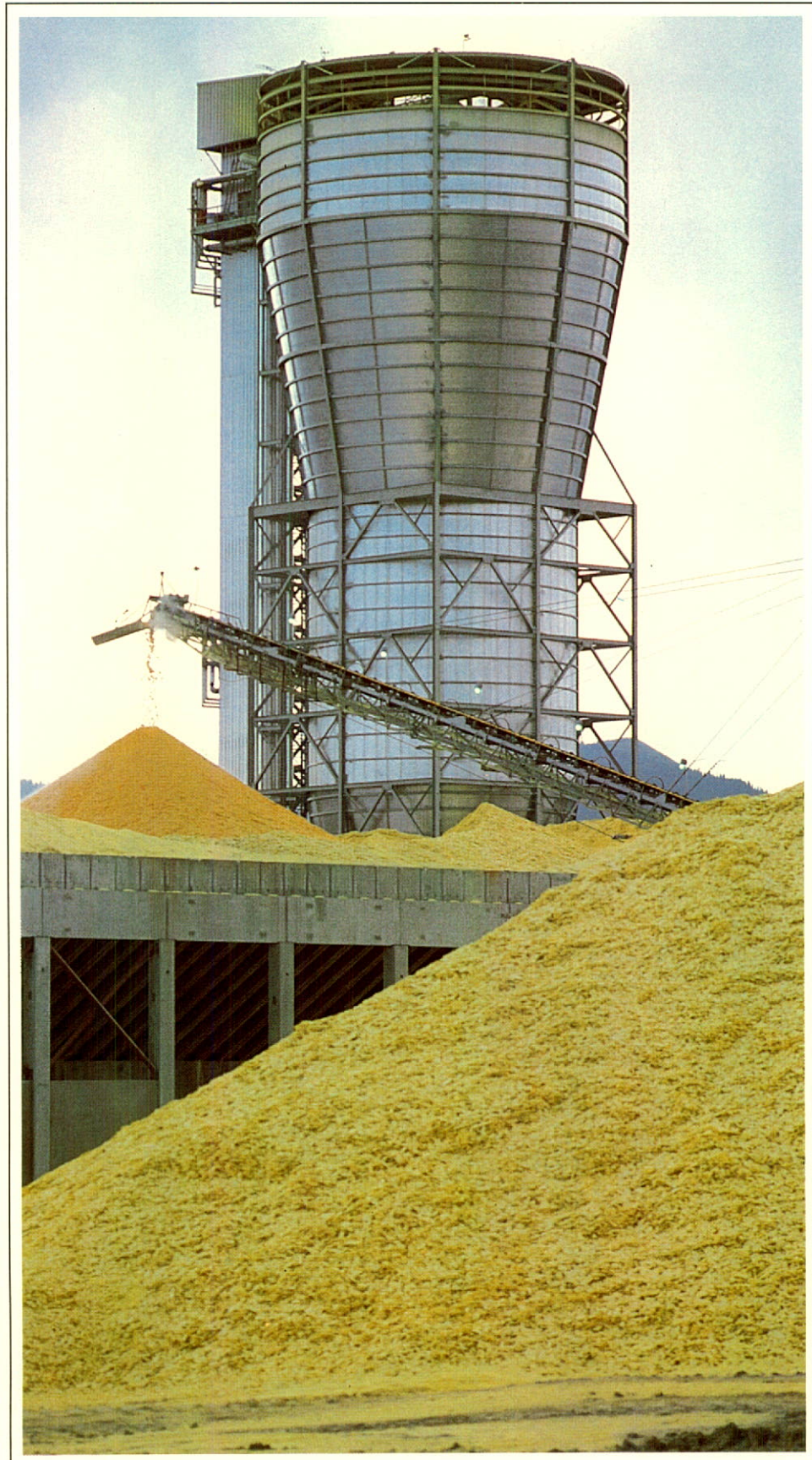
The Company is earning a 37.5 per cent working interest in 4 300 hectares on the **Spectrum/Clayton-Johnson Ranch**. The initial well on the ranch was abandoned and the second well was being completed at year end as a potential Mississippian oil well.

LOUISIANA

Two gas wells were completed on the **Mecom Ranch** in 1981 with each well having approximately 30 metres of net pay in the upper Miocene Planullna P-7 sand. Seismic data indicate that the fault block on which these two wells are completed could have up to 1.7 billion cubic metres of recoverable gas reserves and further drilling will be undertaken in 1982.



Production



The new sulphur priller at Canterra's Ram River gas processing plant

Summary

The Canterra Group continued to be very active in the production of oil, gas, sulphur and coal as well as in production-related construction projects in 1981.

The Group, as indeed most other companies in Alberta, suffered from cut-backs in oil production introduced by the Alberta government in March. Production from the Rainbow field was particularly affected by these measures, which lasted throughout the summer.

One of the results of the federal/provincial agreement, finally reached in September, was the introduction of higher prices for oil. Of particular importance to Canterra was the introduction of world prices for oil recovered by enhanced recovery methods.

Encouraged by this development, Canterra is now working on several enhanced recovery

schemes. The first one, which will receive the new oil reference price (NORP), will start producing by April of 1982.

Increased oil production can also be expected from the Slave and Shekile fields and various fields in southeastern Alberta due to additional drilling that has taken place over the past year.

Development drilling in the Veteran, Alberta, area of the Provost field also resulted in increased oil production. An enhanced recovery scheme is also being considered for that area in the near future.

Active development drilling in the Irrigation block of southeastern Alberta resulted in 26 gas wells, eight oil wells and one service well.

There was a further reduction in the demand for natural gas in both domestic and export markets in 1981 and the outlook for

1982 is for similar conditions. On the positive side, however, income of \$14.3 million from processing outside gas at Ram River is up 40 per cent from 1980 as a result of the first full year of processing gas production from the Limestone field through the plant.

Proven reserves of natural gas in western Canada were increased by 14 per cent during the year. Canada frontier gas reserves of over 45 billion cubic metres have been recognized and included in the group's proven reserves for the first time.

The market for sulphur was strong for the first half of 1981, but softened in the second half.

For most of the year, demand for both steam and metallurgical coal remained strong and average prices were 14 per cent



The heart and brains of the processing plant are embodied in the Rainbow plant control room



higher than in 1980. The higher prices were sufficient to offset the adverse effects of the 72-day miners' strike and other costs.

An active construction program for the Group included the completion of a three-year \$25 million program at Ram River to increase sulphur melting, forming and shipping capacity to over two million tonnes a year. A new pipeline is being designed to connect additional gas reserves from the Blackstone-Hanlan area to the Ram River plant.

Other construction projects included the installation of central battery equipment and waterflood pressure maintenance at the two Bigoray Nisku pools where increased oil production can be expected in 1982 as enhanced recovery projects are being installed.

Oil and Gas Liquids

The Canterra Group's average daily oil and gas liquids production of 5 470 cubic metres before

royalty was down 12 per cent from 1980.

Because of poor economics resulting from the federal/provincial revenue sharing agreement, infill drilling at Rainbow has been deferred. Enhanced oil recovery projects have been in operation in some pools at Rainbow since the late 1960s. Extensive reservoir engineering studies were initiated to determine the best methods of producing the remaining 30 per cent of recoverable reserves in the Rainbow field. The first phase, a miscible flood scheme, has regulatory approval and will be completed in 1982. Solvent injection will begin in 1982 and is expected to increase oil recovery from 52 per cent under current methods to over 70 per cent. Development such as these, particularly in the North Lobe "B" Pool, the second largest pool in the Rainbow field, and production from previously uneconomic shut in pools at Rainbow will mean

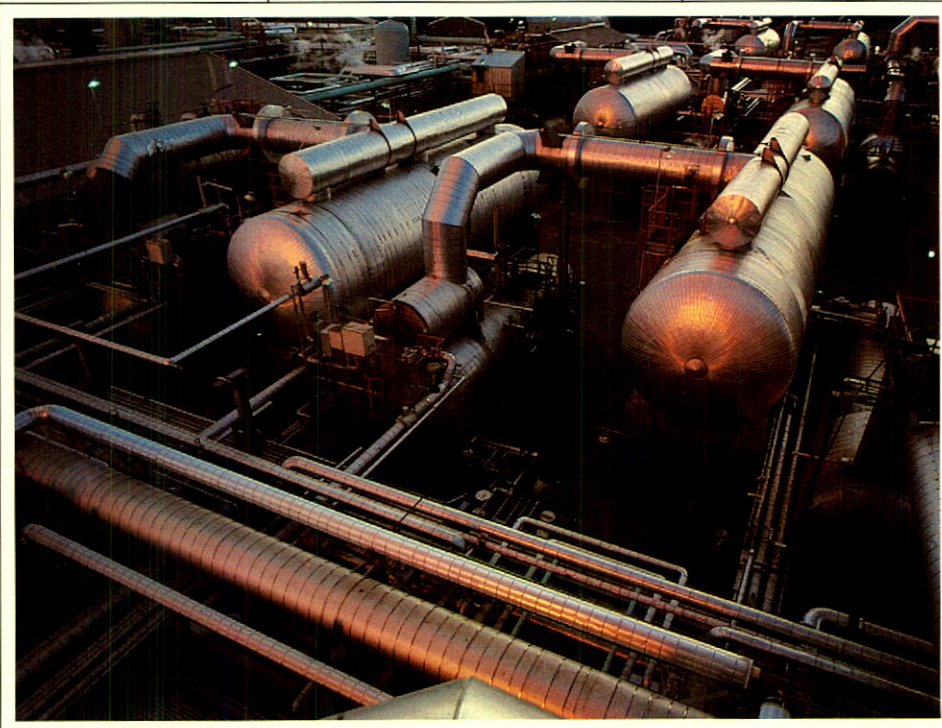
production of NORP oil by mid year. By the end of the year, 165 cubic metres of oil per day from newly developed projects in this area will qualify for the revised price of \$278 per cubic metre, making a significant contribution to Canterra's revenues.

Increased production can be expected from the Slave and Shekilie fields, as well as fields in southeastern Alberta in 1982. Significant quantities of oil from the Slave and Shekilie areas are expected to qualify for the higher new oil prices in 1982.

CANTERRA OIL AND GAS LIQUIDS SALES VOLUMES AND PRICES

	1981		1980*	
	Thousands of Cubic Metres	Average Sales Price	Thousands of Cubic Metres	Average Sales Price
Rainbow				
Before Royalty	1 392	\$116	1 670	\$ 97
After Royalty	792		945	
Other Canada				
Before Royalty	478	\$114	520	\$ 97
After Royalty	N/A		N/A	
United States				
Before Royalty	125	\$275	72	\$245
After Royalty	103		60	
Total				
Before Royalty	1 995		2 262	

* 1980 figures are included for comparative purposes only.



Sulphur recovery unit at Ram River plant

Gas

The daily average production before royalty of sales gas for the Canterra group declined in 1981 by eight per cent to 5.44 million cubic metres due to the lack of gas markets.

However, in readiness for the time when the demand for gas improves, Canterra is proceeding with plans to tie in gas from the Blackstone, South Hanlan and Brazeau fields of the central foothills to the Ram River processing plant. Engineering and equipment purchasing for the \$55 million pipeline and gathering system are in progress. This new facility will have an initial capacity of 4.2 million cubic metres per day and can be expanded by the use of compression to double the capacity. Canterra is the

operator of this project but several other companies operating in the area have indicated an interest in participating.

The Alberta Energy Resources Conservation Board is holding hearings in April, 1982, to review Canterra's application to process this additional gas at the Ram River plant. If approvals are received, construction of the wellsite and dehydration facilities will begin in the fall, and construction of the pipeline will be carried out during the winter of 1982.

Canterra also has a two per cent interest in a new gas processing plant under construction near Edson which will go on stream in 1983. This plant, which has the capacity to process 8.5 million cubic metres per day,

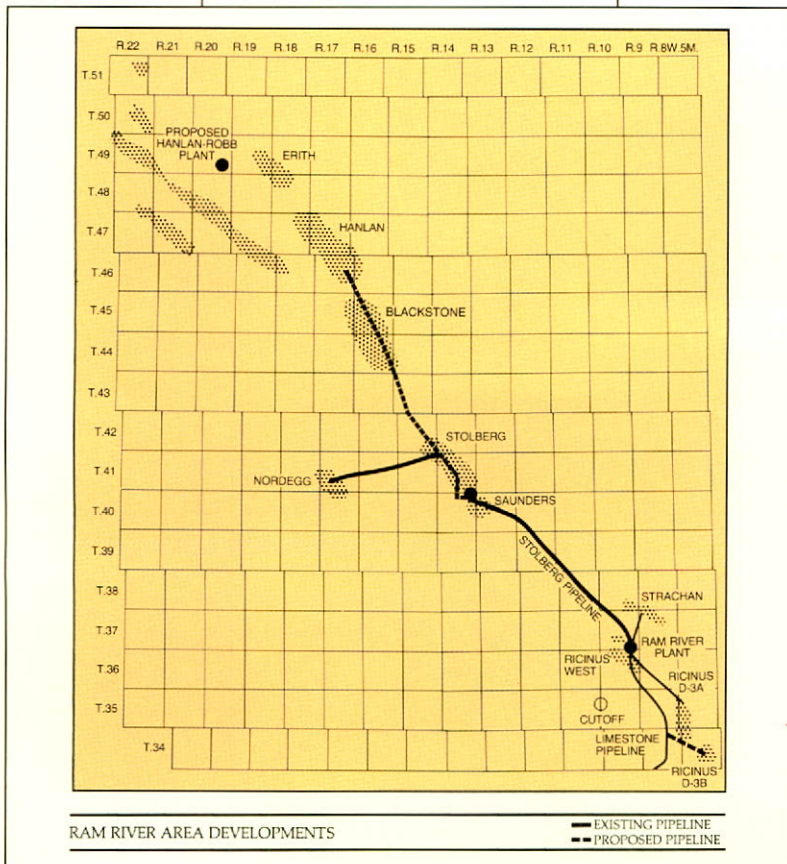
will process gas from the Hanlan-Robb area for delivery to the eastern leg of the Alaska Highway natural gas pipeline prebuild section.

While Canterra has been successful in obtaining contracts for most of its gas, negotiations are still underway for the major South Hanlan and Blackstone reserves.

CANTERRA GAS SALES
VOLUMES AND PRICES

	1981		1980*	
	Millions of Cubic Metres	Average Sales Price/Thousand Cubic Metres	Millions of Cubic Metres	Average Sales Price/Thousand Cubic Metres
Ram River				
Before Royalty	1 040	\$ 92	1 136	\$ 89
After Royalty	604		660	
Other Canada				
Before Royalty	836	\$ 90	927	\$ 83
After Royalty	N/A		N/A	
United States				
Before Royalty	109	\$133	87	\$106
After Royalty	79		72	
Total				
Before Royalty	1 985		2 150	

* 1980 figures are included for comparative purposes only.





Sulphur

Canterra's sulphur sales in 1981 were 1.8 million tonnes. This was made up of 800 000 tonnes of production, 450 000 tonnes of purchases and 550 000 tonnes of product taken from inventory. At 1 500 000 tonnes, the off-shore market continued to comprise the major market area with the North American markets accounting for the remaining 300 000 tonnes.

The Canterra group delivers sulphur to market from several natural gas processing plants in Alberta with largest volumes coming from Ram River, Windfall and Okotoks. Construction of the prilling tower at Ram River was completed in the summer of 1981. Sulphur prills are an excellent product as they are almost dust free in both the forming tower and during handling. Although the tower has a capacity of 3 300 tonnes per day, it is currently operating at around 2 000 tonnes per day

with production rising as improvements and design modifications are made.

As indicated above, a reduction in stock inventories continued to supply a significant portion of the tonnage sold in 1981 with remaining inventories at year end totalling 4 100 000 tonnes.

CANTERRA SULPHUR SALES VOLUMES AND PRICES

	1981		1980*	
	Thousands of Tonnes	Average Sales Price	Thousands of Tonnes	Average Sales Price
Ram River	1 127	\$100	1 167	\$ 76
Other Canada	651	\$ 84	624	\$ 52

* 1980 figures are included for comparative purposes only.

During 1981, Canterra established an office in Pittsburgh, Pa. to handle United States sulphur sales. This office is an addition to staff located in Calgary who are responsible for Canadian sales, management of Canterra's liquid sulphur rail car fleet of 275 cars, and co-ordination of formed product shipments to Vancouver for export. Canterra is represented in the offshore market by Cansulex Limited

which is a Vancouver based sulphur marketing firm comprised of 16 Alberta producers.

Coal

Canterra's coal operations are centered around Pittsburgh, Pennsylvania. Until the fall of 1981 demand for both steam and metallurgical coal remained strong due to the stockpiling and replenishment of coal inventories in advance of, and following, the 72-day miners' strike during the spring and summer. In addition the export market for steam coal expanded, especially to Europe. In the fourth quarter, however, both domestic and export markets started to soften as a result of the world-wide economic slow-down.

The net effect, in spite of the strike which affected underground operations, was a shipment level only eight percent lower than that achieved in 1980 and the second highest in the company's history. Total coal revenues were up 4.7 per cent.



Roughnecks on the rig floor during drilling

COAL SHIPMENTS, SALES PRICES AND PRODUCTION EXPENSES

	1981	1980	% Change
Shipments (tonnes)	1 248 000	1 364 000	- 8.5
Sales prices			
- US \$/tonne	37.96	33.21	+14
Production expenses			
- US \$/tonne	33.93	28.96	+17

Oil Sands & Heavy Oil

Construction of a 400 cubic metre per day experimental pilot project on a 19 600 hectare lease in the Athabasca oil sands was completed in 1981. The pilot includes two production patterns containing a total of 16 steam injection, ten production and 15 observation wells. Initial operations commenced in December, 1981. If the pilot plant meets Canterra's expectations, a 15 000 cubic metre per day commercial facility would be feasible on this lease.

Efforts continued to make the North Battleford heavy oil pilot project an economically viable project through a major expansion. The experimental pilot project, which uses a combination cyclic steam-stimulation-steam drive recovery process was doubled in size from nine to 18 wells. An additional steam generator was also installed. Production treating facilities were upgraded to a capacity of 160 cubic metres of oil per day.

Recently announced government pricing, royalty and taxation policies for heavy oil enhanced recovery projects in Saskatchewan should improve the economics of this project significantly.

Petrochemicals

Of major importance to the national gas industry are the growing number of petrochemical developments in British Columbia and Alberta. In 1981, Canterra proposed a petrochemical and fertilizer complex for

the lower British Columbia mainland. The Company has now been asked to resubmit its proposal for either northern British Columbia or the interior as the British Columbia Government wants to achieve a more balanced economic development within the province. Canterra is currently reassessing the economics of locating the complex in one of the preferred areas.

United States Oil & Gas

Canterra increased oil production on an average daily basis to 346 cubic metres before royalty from its United States operations, up from 198 cubic metres per day in 1980. Gas production of 0.3 million cubic metres per day was also up slightly from the previous year. While average sales prices also increased for both products, production capital expenditures and operating costs doubled. Oil and gas liquids prices benefited from deregulation while average gas prices increased due to general increases on regulated gas and to

a portion of the production qualifying for deregulated pricing.

Reserves

Estimated remaining proven reserves at year-end 1981, as determined by the Company's geological and reservoir engineering staff as well as independent consultants who assessed Texasgulf and Company U.S. oil and gas reserves, are summarized in the accompanying table. During the year, oil reserves dropped by ten per cent, primarily due to production and downward revisions in the Rainbow field. Gas reserves have increased, mainly due to new discoveries, and significant revisions in the Rainbow, Blackstone, Hanlan and Gold Creek areas. Sulphur sales were offset by reserve additions in the Blackstone area.

For the first time, the Company published its evaluation of frontier reserves which, although timing of production is uncertain, represent a significant asset of the Company.

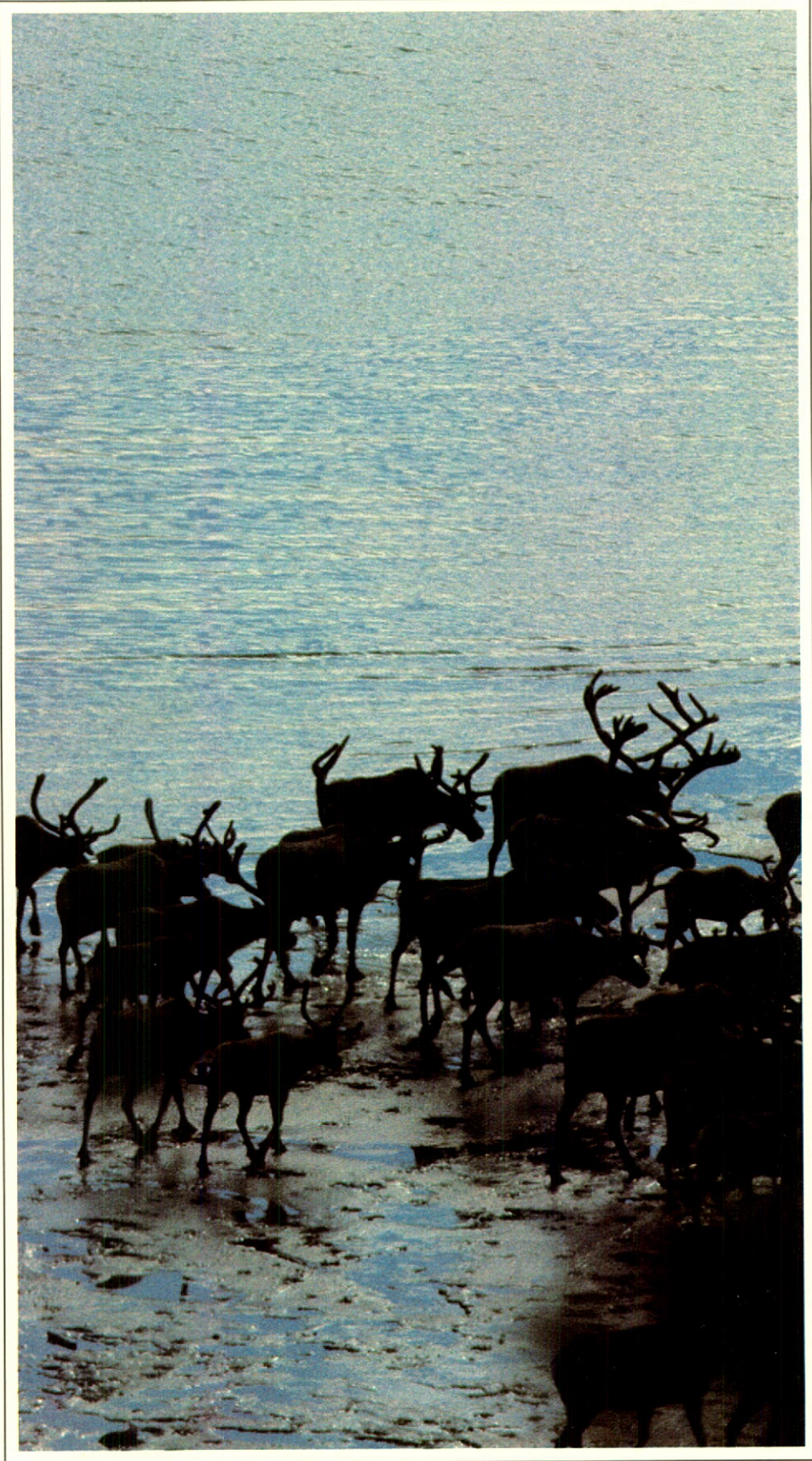
CANTERRA GROSS PROVEN RESERVES

	Oil and Gas		Sulphur Canada	Oil and Gas		Coal U.S.A.
	Liquids Canada	Gas Canada		Liquids U.S.A.	Gas U.S.A.	
	millions of cubic metres	billions of cubic metres	millions of tonnes	millions of cubic metres	billions of cubic metres	millions of tonnes
Conventional						
(western Canada and U.S.A.)						
Proven Reserves						
at 1981-01-01	20.9	35.8	18.6*	0.3	0.7	61.8
Revisions (1)	(1.1)	6.8	1.2	0.2	0.2	(.3)
Production/Sales	(2.0)	(1.8)	(1.2)	(0.1)	—	(1.1)
Proven Reserves						
at 1981-12-31	17.8	40.8	18.6*	0.4	0.9	60.4
Frontier (offshore)						
Proven Reserves						
at 1981-12-31	0.9	45.8	—	—	—	—

*This figure includes the Ram River block inventory, Whitecourt block inventory, Whitecourt sulphur reserves committed to the Canterra Group.

(1) Includes reinterpretation based on production performance and discoveries/extensions as a result of development and exploration drilling.

Corporate Relations



Canterra shares the concerns of northern residents regarding the protection of Canada's Arctic

Environmental Affairs

Canterra has an expanded role in environmental protection and conservation programs, especially in the areas of sour gas processing, sulphur and frontier exploration.

The continued growth in the volume of sulphur sales constantly challenges the company to improve methods of removing, melting, forming and handling sulphur. Improvements to the gas processing plant at Ram River in 1982 will make it one of the most efficient plants in Alberta. Research and monitoring programs continue to be actively supported by the company, especially in the area of sulphur deposition. As a result of a pipeline application to bring new gas into the Ram River gas plant, environmental evaluations and additional monitoring programs were carried out.

In the Davis Strait, local residents were hired as wildlife observers during a 1981 offshore seismic survey. In view of future plans to drill in the Davis Strait, an Inuit Advisory Committee continued to work closely with the company to ensure local communities have a voice in the company's activities.

An environmental overview and an initial environmental evaluation were undertaken with government authorities in support of a Canterra proposal to construct a petrochemical/fertilizer plant along the coast of British Columbia.



Penny Watson and consultant map out a seismic project

Human Resources

The merger of the operations and employees of Aquitaine, CDC Oil & Gas and Texasgulf Calgary was completed by year-end with a minimum of disruption, although naturally there were some personal concerns about new positions, new supervisors and changed locations.

In an effort to be fair to employees from the three amalgamating companies and to establish an efficient organization, employees were interviewed by a neutral party prior to the establishment of the organizational structure. In addition, Canterra provided retention bonuses to all employees who stayed to year-end.

A great deal of work was done by the Human Resources Department to design as quickly as possible a new benefit and compensation package that

would be very competitive within the industry, allow some measure of flexibility for employees and ensure that, as an overall package, the employees would be as well-off as they were under previous plans. Canterra has 1 622 employees, 734 of whom are at head office in Calgary and 693 are in the United States; the remainder are in field locations in Canada.

Naturally a merger of so many people has strained some facilities and required movement of people between different buildings as new groups and departments were set up. All Canterra employees in Calgary are now housed in four buildings within approximately one block of each other.



Safety

The year 1981 was an excellent year in safety performance for Canterra. The overall safety program by all three companies resulted in only one shift being missed. This record performance is the culmination of the efforts of management, supervisors and employees all participating with enthusiasm to keep industrial accidents to a minimum. Four of our five major plants received recognition from the Alberta Workers Health, Safety and Compensation department as well as the Canadian Gas Processors Association. The Ram River plant received the prestigious "Plant of the Year" award.

Community Relations

As Canterra's operations expand and diversify, the regions requiring good community relations grow accordingly. Canterra intends to continue the work started and carried out in the

past by the members of the Canterra Group in their various operational areas and to enlarge and increase its community involvement in the future. Canterra wishes to increase two-way dialogue with residents living near any of its operations so that the company can be aware of any operational or environmental concerns and take measures to mitigate these concerns wherever possible. We also intend to keep residents informed of major new developments in their areas.

The Group's aims of openness and fair disclosure were rewarded when Aquitaine's 1980 annual report won the Financial Post's top award for annual reports in the petroleum group.

Canterra will continue to support the arts through its donations program, honouring any commitments made in the past by Aquitaine, CDC Oil and

Gas and Texasgulf. The company will also support programs relative to education, young people and health and welfare, amongst others.

Canada Industrial and Social Benefits

Canterra supports the goals of the Canadian Government in providing jobs for Canadians and maximizing industrial benefits for Canadian suppliers of goods and services. It endorses the expressed objectives of its parent company which are:

1. "To develop and maintain strong Canadian controlled and managed corporations in the private sector.
2. To widen the investment opportunities open to Canadians and Canadian-controlled companies.
3. To operate profitably and in the best interest of all the shareholders."



Canterra personnel with their Petrochemical Safety Council plant safety awards for 1981.

From left to right: Bob Coward, area manager, Ram River with the "Plant of the Year" award; Phil Fabian, field operator, Hussar plant; Brian Kelly, plant superintendent, Rainbow Lake; Phil Taylor, plant operator, Nordegg River plant.

All four plants also received awards from the Gas Processors Association.

Financial

During 1981 Canada Development Corporation (CDC), through its wholly owned subsidiary CDC Petroleum Inc., acquired all outstanding shares of Aquitaine Company of Canada Ltd. from Société Nationale Elf Aquitaine and minority shareholders. In a subsequent transaction CDC exchanged its interest in Texasgulf Inc. and, together with a cash settlement, acquired the Canadian assets of Texasgulf Inc.

The oil, gas and sulphur operations of Aquitaine Company of Canada Ltd., CDC Oil & Gas Limited and applicable Canadian interests of Texasgulf Inc. will be operated under the name of Canterra Energy Ltd. The first step towards this objective was made on 1981 November 23, with the change in name of Aquitaine Company of Canada Ltd. to Canterra Energy Ltd.

As at 1981 December 31, the legal reorganization which combines all of the companies under one corporate entity was not implemented. However, specific plans were in place at December 31 and at the time of issuance of this annual report the first stages of the reorganization have taken place. The final stages of the reorganization which will place all the assets and liabilities of the companies under one corporate structure is scheduled for completion by the end of 1982.



Canterra's treasurer, Terry Heneaghan (left) and Clarence Glessing, controller, discuss annual reports



The accompanying pro forma combined balance sheet presents the financial position of the Canterra Group as if the planned reorganization of the Group had taken place on 1981 December 31, giving the effect of placing all the assets and liabilities of the combining companies and the Canadian oil, gas and sulphur interests of Texasgulf Inc. under one corporate structure including:

- (i) The issue of equity by Canterra Energy Ltd. to the Group's parent company to acquire all the issued and outstanding shares of CDC Oil & Gas Limited at an ascribed value of \$254.3 million.
- (ii) The issue of equity by Canterra Energy Ltd. to the Group's parent company to acquire the Canadian oil, gas and sulphur interests of Texas gulf Inc. at an ascribed value of \$175.0 million.
- (iii) A windup, through a series of transactions of CDC Petroleum Inc., into Canterra Energy Ltd.
- (iv) The issue of equity by Canterra Energy Ltd. to the group's parent company for cash consideration of \$165.0 million.

The pro forma combined total assets of the Group are \$3,088.6 million and working capital is \$280.8 million. Third party long-term debt is \$475.1 million. Notes payable to the parent company of \$1,710.0 million results from the acquisition of Aquitaine Company of Canada Ltd. These notes are payable on demand but the parent company has indicated that it is not the intent to demand repayment unless they are substituted by other forms of long term debt or equity. In the absence of any prepayment by Canterra, or any demand from CDC, the notes will be repaid in line with the repayment schedule agreed to between CDC and its lenders; obligatory repayments commence in 1987 and end in 1991.

Shareholder's equity is \$594.3 million at 1981 December 31 after giving effect to the issue of equity contained in the pro forma assumptions of the combined balance sheet and more fully explained above.

Canterra Energy Ltd.

Pro Forma Combined Balance Sheet

1981 December 31 (unaudited)

(thousands)

ASSETS

Current Assets

Cash	\$ 1,500
Short term investments	51,400
Accounts receivable	142,700
Due from parent company	165,000
Petroleum Incentive Program grants receivable	52,500
Income Taxes and Windfall Profits Taxes recoverable	6,900
Inventories	67,000
Prepaid Expenses	8,700
	<u>495,700</u>
Note Receivable from Parent Company	11,000
Investments and Other Assets	35,900
Property, Plant and Equipment	<u>2,546,000</u>
	<u><u>\$3,088,600</u></u>

LIABILITIES

Current Liabilities

Bank Indebtedness	\$ 23,700
Accounts payable and accrued liabilities	111,300
Petroleum and Gas Revenue Taxes payable	17,000
Due to parent company	62,500
Current portion of long term debt	400
	<u>214,900</u>
Long Term Debt	475,100
Notes Payable to Parent Company	1,710,000
Deferred Revenue	14,700
Deferred Income Taxes	79,600
	<u>2,494,300</u>
Shareholder's Equity	<u>594,300</u>
	<u><u>\$3,088,600</u></u>



Corporate Information

Directors

William D. Clark
President,
Clark, Young & Associates,
Calgary, Alberta

John B. Hague
Vice Chairman of the Board,
Canterra Energy Ltd.,
Executive Vice President,
Canada Development
Corporation,
Toronto, Ontario

H. Anthony Hampson
President and
Chief Executive Officer,
Canada Development
Corporation,
Toronto, Ontario

Bernard F. Isautier
President and
Chief Executive Officer,
Canterra Energy Ltd.,
Calgary, Alberta

D. Carlton Jones
President,
Carlton Resource
Management Ltd.,
Calgary, Alberta

John R. McCaig
Chairman of the Board and
Chief Executive Officer,
Trimac Limited,
Calgary, Alberta

John O. O'Brien
Chairman of the Board,
Canterra Energy Ltd.,
Executive Vice President,
Canada Development
Corporation,
Calgary, Alberta

H. Gordon Pearce
Partner in the economic
consulting firm of
Foster Research,
Calgary, Alberta

Stanley G.B. Pearson
President,
S.G.B. Pearson Holdings Ltd.,
Cremona, Alberta

Neil F. Phillips
Partner in the law firm of
Phillips & Vineberg,
Montreal, Quebec

John D. Redfern
President and
Chief Executive Officer,
Canada Cement Lafarge Ltd.,
Montreal, Quebec

Allan F. Waters
President, CHUM Limited,
Toronto, Ontario

Gordon D. deS. Wotherspoon
Chairman,
Eaton/Bay Trust Company
Toronto, Ontario

Officers

John O. O'Brien
Chairman of the Board

John B. Hague
Vice Chairman of the Board

Bernard F. Isautier
President and
Chief Executive Officer

John H. Currie
Senior Vice President,
Administration,
Oil Sands and Heavy Oils

Michael E. Hriskevich
Senior Vice President, Corporate
Affairs and Special Projects;
President,
U.S. Oil and Gas Subsidiary

T. Sean Ahern
Vice President, Finance

Jean M. Faber
Vice President,
Western Canada Exploration

William F. Kaufmann
Vice President,
Frontier Exploration

Kenneth J. MacRae
Vice President,
Oil Sands and Heavy Oils

Henri Martial
Vice President, Production

Jean-Jacques Pascal
Vice President, Coal

Frank Ricciuti
Vice President,
Corporate Development

D. Michael Stewart
Vice President, Marketing

W. Stewart Wright
Corporate Secretary and
General Counsel

Lawrence M. MacLeod
Assistant Secretary

Clarence E. Glessing
Controller

Terence A. Heneaghan
Treasurer

Colin R. Moyes
Assistant Treasurer

Audit Committee Members

William D. Clark (Chairman)
H. Gordon Pearce
Neil F. Phillips
Allan F. Waters

Executive Committee Members

John O. O'Brien (Chairman)
John B. Hague
Bernard F. Isautier
D. Carlton Jones
Stanley G.B. Pearson

Compensation Committee Members

D. Carlton Jones (Chairman)
John B. Hague
H. Anthony Hampson
John D. Redfern
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Auditor

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