

# PIPELINE

## Agency Overview

Spanning the frozen tundra of Alaska and northern Canada, the Alaska Highway gas pipeline will extend a distance of 7,720 km to reach markets in the lower 48 states. The buried big-inch pipeline will deliver up to 2.4 billion cubic feet per day of natural gas from the vast proven reserves of Prudhoe Bay, Alaska. It is the largest privately financed venture ever undertaken in the world.

The Northern Pipeline Agency was established by Act of Parliament in April, 1978 as the sole regulatory authority for the multi-billion dollar project. It will administer the many federal acts that apply to construction of the pipeline in Canada, and thereby streamline and speed up the approval process. The powers of the National Energy Board are represented within the Agency by the Designated Officer, William A. Scotland.

The pipeline legislation was drafted in accordance with the Canada/United States Agreement of September, 1977, which committed both governments to facilitate the construction of the northern gas transmission system. This international joint agreement was the culmination of years of struggle by a number of companies competing to transport American and Canadian Arctic gas south.

After extensive public hearings conducted by the National Energy Board, and the Berger, Lysyk, and Hill Inquiries, the government accepted the recommendation that the pipeline follow a route through the Yukon. The *Northern Pipeline Act* issued the certificates to build the pipeline to the Foothills group of companies and set out the framework which would govern construction of this mega project.

Canada will gain considerable benefits from pipeline construction. It is ex-

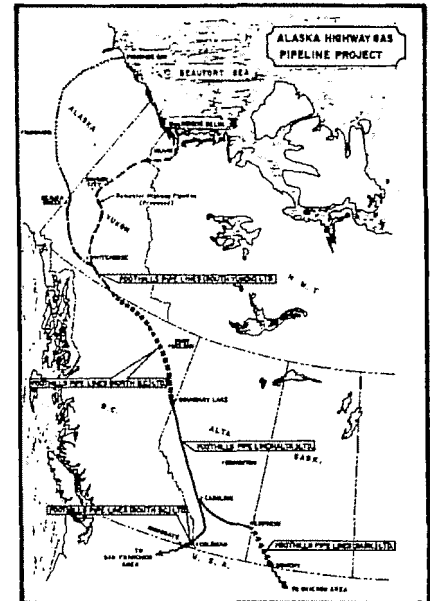
pected that more than 90 per cent of the goods and services needed for the project will be of Canadian origin. Foothills estimates the labour force requirements over the five-year construction period is a projected 350,000 direct and indirect man-years. More important, the northern pipeline will provide access to Canadian gas reserves in the Mackenzie Delta/Beaufort Sea area, if and when a lateral is approved. A significant portion of the cost of the Dempster Lateral will be borne by United States gas consumers.

In addition to ensuring the timely completion of the project, the Agency is to see that the pipeline system yields the maximum economic and industrial benefit for Canadians with the least adverse effect on people and their environment. The Act directs the Agency specifically to take account of the local and regional interests of residents, especially native residents, in areas through which the pipeline will pass.

In keeping with its objectives, the Agency has been preparing socio-economic and environmental terms and conditions and technical requirements which will apply to the segment company who holds the certificate for building the pipeline. The technical requirements refer to each segment of the system in Canada and relate to aspects of pipeline design, scheduling, cost control, construction and inspection of the pipeline.

The socio-economic and environmental terms and conditions are divided into five regions -- Yukon, North B.C., South B.C., Alberta and Saskatchewan -- to reflect the different conditions in areas along the pipeline route. The terms and conditions require the company, for example, to ensure local telephone and radio services are not disrupted unduly, airports and highways remain free for area traffic, and that residents in nearby communities have the opportunity to obtain jobs and small business contracts related to pipeline construction.

The effects of the Alaska Highway gas pipeline will be varied but will be greatest on the sensitive areas of Yukon



and northern British Columbia. For this reason, the Agency held public hearings in Yukon and B.C. last year to hear the views of local residents and to receive comment on the draft terms and conditions. They have now been finalized, as have those for the Saskatchewan segment, and will be approved by the federal government in the near future. The terms and conditions for southern B.C. and Alberta were passed by the government in July.

Responsibility for the Agency, which numbers about 95 employees, rests with Sen. H.A. (Bud) Olson, who is also Minister of State for Economic Development. The principal officers of the Agency are the Hon. Mitchell Sharp, Commissioner, who is located at the Agency's headquarters in Ottawa; Harold S. Millican, Administrator and Chief Operating Officer, William A. Scotland, Deputy Administrator and Designated Officer, and A. Barry Yates, Deputy Administrator Policy and Programs all located at the operational headquarters in Calgary. Elden Schom and Ken McKinnon are located respectively at the regional offices in Vancouver and Whitehorse.

# Surveillance

News reports have called it the most inspected pipeline in history.

On the short, mountainous 88 km section of the western leg in south-eastern British Columbia the pipeline company has 16 inspectors, the province has two officials and the Northern Pipeline Agency has five surveillance officers. On the 125 km stretch of the pipeline on the Alberta side, there are 14 company inspectors, seven provincial officials and three surveillance officers of the Agency.

The Alaska Highway gas pipeline is an international project under federal jurisdiction that in some areas crosses provincial lands. The Agency surveillance team is to ensure the pipeline company and its contractors comply with the federal regulations -- the environmental and socio-economic terms and conditions and technical requirements to be applied in building the pipeline.

Ordinarily, the National Energy Board would be responsible for overseeing construction of the pipeline, but, in this instance, Parliament vested the authority in the Agency to centralize and speed up the regulatory approval system. The Designated Officer, William A. Scotland, is an Associate Vice Chairman of the NEB and exercises the powers delegated to him by the Board within the Agency.

Officials from Alberta and British Columbia support the surveillance officers with respect to environmental matters. The Company inspectors for

Foothills Pipe Line (Alta.) Ltd. and Foothills Pipe Lines (South B.C.) Ltd. maintain quality control on the actual construction of the pipeline.

The Agency's Senior Surveillance Officer, Jim Wallace, reports that few problems have been encountered by the contractor, Banister Pipelines of Edmonton, on the rolling stretches of the pipeline route in southern Alberta. Loose gravel in the river beds delayed completion of the river crossing, as the construction workers were forced to dig deeper and wider trenches than planned to prevent the walls from falling in.

Rains in early September also held up construction for six days. Most recently the operating engineers walked off the job in a contract dispute. Overall, Wallace estimates Banister is about two weeks behind schedule, but expects the contractor to be on target and off the right-of-way by mid-December.

The heavy rains in late August and throughout September caused greater difficulty for the contractor, Marine Pipeline Construction of Canada Limited of Calgary, on the 33.4 km Flathead Ridge near the Crowsnest Pass. Ditching operations were running ahead of schedule and the walls sloughed in owing to the continuous rainfall. As well, crossings or plugs across the trench needed to be maintained to prevent silting of streams and to act as a bridge for wildlife.

At the recommendation of Senior Surveillance Officer, J.H. 'Cueball' Mor-

ison, the Designated Officer issued a non-compliance notice to the company, Foothills (South B.C.), on September 15. The notice instructed the company to halt work until the amount of open trench had been reduced to 8 km and to install the necessary plugs. The non-compliance notice was subsequently amended September 22 to permit greater lengths of open trench to be set by the Senior Surveillance Officer depending on conditions at that time.

Morrison calculates construction for the southern B.C. section is approximately one week behind the projected schedule. With a break for Christmas, he says construction should be completed by mid-January.

Initial gas deliveries to the United States through the western leg are scheduled to begin in May, six months later than planned. The delay in building the connecting installations of the pipeline in the United States is a result of the current soft market for Canadian gas exports and delays in receiving Canadian government approval to begin construction of the southern segments.

## Editor's Note

In this first issue of "Pipeline, A Report of the Northern Pipeline Agency", we have reviewed the Agency's background, covered the events that led to Cabinet approval for construction of pre-build, and talked with our field surveillance crews.

Published monthly by the Agency's operational headquarters in Calgary, "Pipeline" will be distributed to communities along the project route. It will focus on the activities of the Agency and the progress of the project, and will include reports from our policy headquarters in Ottawa and regional offices in British Columbia and Yukon. Regular features will include news of the pipeline company, Foothills Pipe Lines (Yukon) Ltd., the Parliamentary House and Senate pipeline committees, and our regulatory counterpart in the United States Office of the Federal Inspector.

We hope you find it informative.

*Anna Lawrence*



Construction of the Alaska Highway pipeline in South B.C.  
Photo by: Lee Burkitt (Daily Townsman)

# Minister Meets With Advisory Councils



Northeastern B.C. Advisory Council Meeting in Fort St. John.

Members of the Northern British Columbia Advisory Council focused their attention on their roles as an advisory group and plans for the coming year in a meeting September 26 with Sen. H.A. (Bud) Olson, Minister responsible for the Northern Pipeline Agency.

The ten member Council questioned the Minister on its relationship to him and the Northern Pipeline Agency, and the resources available to it at the meeting in Fort St. John. The Council was appointed in mid-September by the federal government for a two year term to advise the Minister

of potential impacts from construction of the Alaska Highway gas pipeline and ways to maximize social and economic benefits.

Under its terms of reference, the Council may publish its reports of recommendations to the Minister. The Agency will provide the technical and professional expertise necessary for the members to perform their duties.

Patrick Walsh, Mayor of Fort St. John and lawyer, has been named Chairman. Serving as Vice Chairman is George Miller, a board member of the United Native Nations and active com-

munity leader in Lower Post. The other eight members are: Mel Burke, Kamloops; Don Edwards, Fort Nelson; Amy Gautier, Chetwynd; Jack Hannan, Dawson Creek; Leo Rutledge, Hudson Hope; Eleanor Summer, Fort Nelson; Jim Voight, Summit Lake Lodge; and Jed Woolley, Fort St. John.

In Yukon September 25, Advisory Council Chairman Don Roberts reviewed with Sen. Olson the environmental concerns associated with the pipeline route. Discussion also centered on the Council's work evaluating the pipeline company's manpower plan for the Yukon section of the project.

Eight Yukon residents were appointed to the advisory body in February, 1979. The Council for Yukon Indians was invited to nominate two appointees to the Council at the time, but it declined to accept pending settlement of land claims negotiations.

During his trip north, the Minister also met with the Yukon Government as well as Pipeline Coordinator, John Ferbey, and his staff, and attended a luncheon with business and community leaders in Fort Nelson.

## Moccasin Telegraph *By Alison Atkins*

The Agency's Whitehorse office has been active overseeing field work conducted by Foothills Pipe Lines (South Yukon) Ltd. on the proposed northern pipeline right-of-way.

The company is completing route location work and was granted permits to clear a two metre strip along the south boundary of the proposed 40 metre wide right-of-way. Surveys have been taken of rivers, streams, highways and boundaries to locate the approaches of the pipeline and to anticipate problems that could be encountered in the crossing. Geophysical and geotechnical investigations have also been undertaken to determine ground formations and to allow Foothills to sample soils and test areas subject to permafrost.

The pipeline route has been the subject of considerable discussion in Yukon. The Yukon Advisory Council and the Yukon Government have recommended the pipeline route to the west of Whitehorse follow the Ibex Pass,

subject to certain environmental constraints. To the east of Whitehorse, the company's proposal to route the pipeline through the Mt. Michie-Squanga Lake wilderness area has been withdrawn in favor of a route closer to the Alaska Highway. The Federal Environmental Assessment Review Panel must still submit a report before the Agency approves a final route decision.

Our office continues to work closely with Yukon Government Pipeline Coordinator, John Ferbey, and his staff. Through this ongoing liaison, all Yukon government departments will have input to the project planning and thus ensure regular government services continue to operate uninterrupted throughout the project.

The Agency's Yukon Administrator, Ken McKinnon; Administrative Assistant, Betty Gautier; and myself, Alison Atkins, Manager, are happy to respond to any questions or concerns and may be contacted at (403) 668-4301.

## Southern B.C. Field Representative Appointed

Laurie McNeil is the Agency's new field representative in southeastern British Columbia.

Laurie will be responsible for community liaison, communications and monitoring socio-economic issues in relation to the construction of the Alaska Highway gas pipeline.

A graduate of Simon Fraser University with a Bachelor of Arts, Geography Major, Laurie has four years experience in research and communications. She has worked for a number of Vancouver consulting firms in the socio-economic, environmental and energy fields. These firms include Associatec Resource Consultants Ltd. as a researcher on the Alaska Highway pipeline project, and A.L.P. Horsmar and Associates monitoring the social impact of a gas line looping project in southern Fraser Valley.

Laurie's office is located in Cranbrook at 204, 201 - 14th Avenue North or she can be contacted at (604) 489-1516.

# Terms and Conditions Released

## Comments taken into account

Socio-economic and environmental terms and conditions for southern British Columbia and Alberta were released July 25 by Sen. H.A. (Bud) Olson, Minister responsible for the Northern Pipeline Agency.

Prepared by the Agency in consultation with the British Columbia and Alberta governments, the terms and conditions will apply to the pipeline company in constructing and operating the natural gas transmission system in southern British Columbia and Alberta. First and second drafts of the socio-economic and environmental terms and conditions have been released over the past two years for public review. Comments received from interested parties were taken into account in finalizing the terms and conditions.

They include requirements for Foothills Pipe Lines (South B.C.) Ltd. and Foothills Pipe Line (Alta.) Ltd. to:

- inform and consult with interested parties on the construction and operation of the pipeline;
- orient employees working in the field;
- provide training, employment and business opportunities to native people;
- provide employment opportunities for women;
- compensate for damage to property;
- protect traditional harvesting and cultural areas;
- minimize adverse environmental impact, including impacts on the terrain, landscape, waterbodies, air quality, wildlife, fish, archaeological and special interest areas and other facilities;
- implement inspection and monitoring procedures to ensure compliance with the terms and conditions; and
- submit, for approval by the Agency, certain socio-economic plans and environmental submissions to show how the requirements of the terms and conditions will be implemented.

If you would like further information, or copies of these terms and conditions, please contact any of the Northern Pipeline Agency offices.

# News In Brief

During the last week in August four new companies joined the Alaska Natural Gas Transportation System (ANGTS) consortium responsible for building the pipeline in Alaska. The partners are subsidiaries of: the Columbia Gas System Inc., Wilmington, Delaware; TransCanada Pipe Lines Ltd., Toronto, Ontario; Texas Eastern Corporation, Houston, Texas; and Texas Gas Transmission, Owensboro, Kentucky. This brings the total number of companies in the consortium to 11.

\* \* \* \* \*

The transfer of powers under several acts administered by other federal departments to the Northern Pipeline Agency was approved by the Governor-in-Council on August 27. The Agency has assumed responsibility for pipeline related provisions under the Northern Inland Waters Act and Territorial Lands Act, previously administered by the Department of Indian and Northern Affairs; the Migratory Birds Act, the Clean Air Act, the Environmental Contaminants Act and the Canada Wildlife Act administered by the Department of Fisheries and Oceans.

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On September 3, Northwest Pipeline Corporation began construction of the western delivery leg in Union County, Oregon. This segment consists of 565 km of looped pipeline and additional compressor station facilities along Northwest's existing right-of-way in Oregon and Idaho. The contractor, Banister Pipelines America of Englewood, Colorado, will lay approximately 161 km of 762 mm diameter pipe and 16 km of 610 mm pipe, running to a point near Baker, Oregon. The first segment of the project extends from Stanfield, Oregon, to Burley, Idaho, and is scheduled for completion in July, 1981. The remaining contracts for the pipeline will be awarded some time in October.

\* \* \* \* \*

The Northern Border Pipeline Company's application for a Certificate of Compatibility was rejected by the North Dakota Public Service Commission (PSC) on September 12. The PSC has recommended an alternative corridor

considered to be superior from an environmental standpoint. The Office of the Federal Inspector and the Federal Energy Regulatory Commission filed a joint suit September 26 in the North Dakota District Court challenging the authority of the PSC to alter the pipeline route. Northern Border is the sponsor company of the Alaska Natural Gas Transportation System eastern leg.

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The Yukon Government hosted the third quarterly Consultative Council meeting in Whitehorse, September 24. Following a luncheon, Northern Pipeline Agency Commissioner, Mitchell Sharp, briefed government representatives from Yukon, British Columbia, Alberta and Saskatchewan on his meetings two weeks earlier in New York with the financial community supporting the project. Council members also reviewed with Agency officials construction progress on the western leg and plans for the eastern leg and main line.

\* \* \* \* \*

The Governments of Canada and the Province of Alberta signed an Administrative Agreement on September 24, providing for consultation and cooperation on matters relating to the construction and operation of the Alaska Highway gas pipeline. Such consultations would include areas such as terms and conditions, final routing, right-of-way, requirements for manpower and training, and concerns of native and non-native people along the route. The two governments signed a principal agreement on August 26 to cooperate in the construction of the Alaska Highway pipeline in Alberta.

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A commemorative weld ceremony was held at Burton Creek, Alberta on September 27 to mark the start of construction on the western leg of the Alaska Highway pipeline. Sen. H.A. (Bud) Olson, Minister responsible for the Northern Pipeline Agency, and Hon. Jack Rhett, Federal Inspector for the Alaska Highway pipeline in the United States, spoke on behalf of the Canadian and United States government.

# Canadian Government Approves Pre-Build

By Bruce Macdonald

From the time it was first proposed by the National Energy Board in July, 1977, until the final go-ahead was given by the Canadian government this past July -- three years later -- the pre-building of the southern sections of the Alaska Highway gas pipeline was a tight and tortuous race to the wire.

The NEB originally advocated building of the eastern leg and western legs of the project in southern Canada and the lower 48 U.S. states in advance of the remainder of the system to provide a means for the short-term export of a small surplus of Alberta gas. The Board anticipated that Canada could face shortages of supplies from conventional areas beginning in the early 1980's, so it stipulated that these exports should be swapped for later gas imports from U.S. reserves in Alaska.

The pre-build concept was endorsed in principle by President Carter a few months later and the import of Canadian gas through these facilities conditionally approved by the U.S. Federal Energy Regulatory Commission in June, 1978.

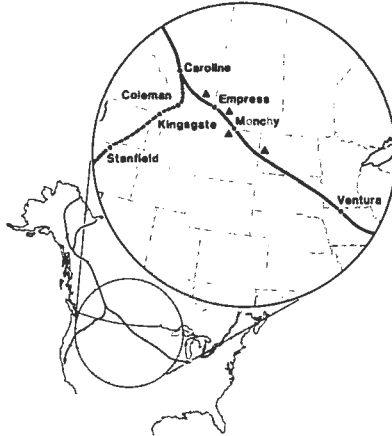
In Canada, pre-build's transition from concept to reality proved to be complex and time-consuming. Long before plans for pre-build could be considered by the Agency, the NEB had to complete a series of coast to coast hearings on gas supply and demand.

In February, 1979, the Board published its conclusion from the hearings that as of the end of the previous year Canada had built up a surplus of some two trillion cubic feet of gas as a result of the accelerated force of exploration. Another series of hearings was then convened during the summer to consider applications from a number of companies for authority to export supplies to the United States.

In the decision which it brought down on December 6, 1979, the Board authorized the export of 3.75 tcf out of a projected surplus of 4.5 tcf. Out of the volume authorized for export, the NEB allocated 1.8 tcf to Pan-Alberta Gas Ltd. for transmission through the pre-build facilities over a maximum of seven years.

Foothills (Yukon), sponsor of the Alaska Highway project in Canada, and the sponsors of the eastern and western legs of the system in the lower 48 states, immediately contended that the volume

THE ALASKA HIGHWAY GAS PIPELINE PROJECT  
PROJECT PHASE I - PREBUILD



of gas allocated for transmission via the pre-build facilities was inadequate. In light of the delays that had already been encountered, they maintained greater export volumes would be required to permit financing of the first stage of construction of the Alaska Highway gas system.

Throughout the late winter and spring of 1980, further rounds of hearings were held on an intensive basis by two different panels of the National Energy Board. The panels considered a variety of measures which Foothills submitted were essential to enable pre-building of the pipeline to proceed on schedule. To complete the western leg by November of this year and the eastern leg by November of 1981, Foothills indicated it required all necessary approvals by the end of March, a deadline that was progressively set back to July 15, 1980.

As a result of these hearings the Board arrived at a number of decisions aimed at establishing the viability of the pre-build project. These decisions involved the assignment of an additional volume of gas from the previously unallocated surplus of some 500 bcf for export through the pre-build, the further export through the eastern leg of some 450 bcf that had been previously earmarked for export through expansion of existing facilities, and special depreciation provisions.

In addition, the Board allowed the company to calculate the incentive rate of return on equity on the basis of final design costs rather than on filed capital costs originally submitted in 1977.

At the same time as these specific issues relating to the financial viability of the pre-build were under review, a much broader and more fundamental question was emerging for consideration.

When the *Northern Pipeline Act* was drafted in 1978, it was expected that if pre-build proceeded at all, it would only be moderately in advance of construction of the remaining sections of the line in northern Canada and Alaska. This assumption was reflected in Condition 12 of Schedule III of the pipeline legislation, which required Foothills to satisfy both the NEB and the Minister responsible for the Agency that financing had been obtained for the entire line in Canada.

Delays encountered in the United States in completing arrangements for construction of the Alaskan segment of the system had made it impossible for Foothills to obtain assured financing for the whole line in Canada by the time pre-building of the southern sections was scheduled to begin. However, pre-building had come to assume much greater importance than originally was the case as a means of facilitating completion of the entire project.

Pre-building would also yield substantial economic benefits for Canada. The larger volume of Alberta gas available for export through the pre-build compared to that first contemplated by the NEB would mean increased balance of payments inflows, producer revenues, and capital investment in gas production, conditioning and gathering facilities.

On April 2, 1980, the NEB issued an order under the provisions of the *Northern Pipeline Act* amending the terms of Condition 12, subject to the approval of the Governor-in-Council. The effect of the amendment was to require Foothills to establish that funds had been obtained for the pre-built sections of the line and could be obtained for the remaining northern sections in Canada.

Meanwhile, one of the foremost considerations on the mind of the government was the nature of the assurances that might be forthcoming from the United States with respect to the expeditious completion of the entire project within its territory. A round of high level negotiations between Canada and the United States ensued.

*Continued on next Page.*

## (Pre-build Continued)

Sen. Olson, went to Washington on May 12 to discuss the question with U.S. Energy Secretary Charles Duncan and other U.S. authorities. At the Venice summit meeting in the latter part of June, Prime Minister Trudeau raised the matter with President Carter and Energy Minister Marc Lalonde had further talks with Secretary Duncan. On June 27, Sen. Olson again travelled to Washington for meetings with Vice-President Walter Mondale, Secretary Duncan and a number of congressional leaders.

Several actions south of the border resulted from these discussions. On June 19, the Alaskan gas producers and the pipeline sponsor signed an agreement to share \$500 million in costs to complete design and engineering of the

Alaskan pipeline and conditioning plant. Two weeks later, the Senate and House of Representatives unanimously approved a resolution asserting that completion of the Alaska Highway pipeline project by the end of 1985 had the support of Congress.

On July 17, President Carter wrote to Prime Minister Trudeau to express the confidence of the U.S. government that the entire project within its territory would be completed expeditiously. The approval in principle by the Canadian government for proceeding with construction of the pre-build sections was announced in Parliament that same night by Sen. Olson and Energy Minister Lalonde.

Although all necessary regulatory approvals had by this time been granted in the United States for the pre-build, a few steps remained to be completed in Canada. On July 21, the NEB issued a report that concluded that the requirements of Condition 12 as amended had been satisfied as a result of developments in the United States that met earlier concerns over financing for the entire project.

After three years and countless delays, the way for Foothills to begin building the pipeline was cleared. On August 5, 1980 Sen. Olson issued a "leave to proceed" with construction order over the mountainous 33.4 km Flathead Ridge in southeastern British Columbia.

## Crossword

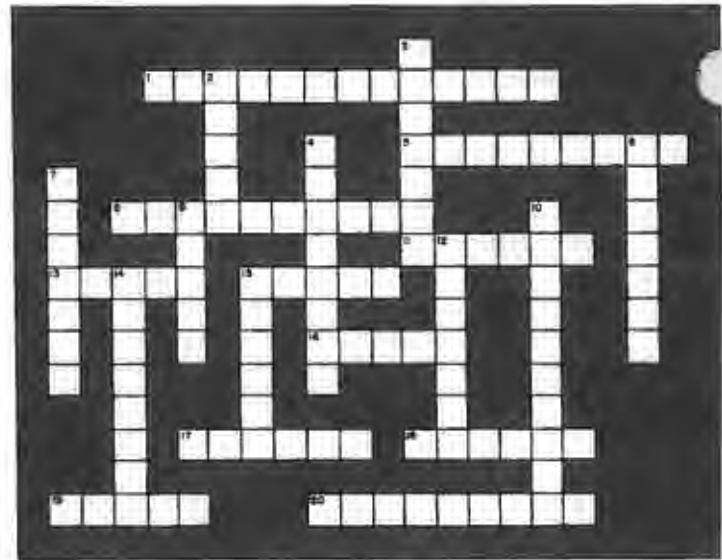
### Answers to appear in Next Issue

#### Across

- 1 - terms and conditions respecting people, communities and opportunities
- 5 - responsible for building the Alaska Highway gas pipeline
- 8 - movement caused by the freezing of moist soil, pushing the pipe upwards
- 11 - Discovery Days celebrated here
- 13 - construction of the western leg in Alberta begins at this river
- 15 - a one day hearing held in this portion of B.C.
- 16 - right-of-way at times requires additional \_\_\_\_\_
- 17 - awarded procurement contracts to supply line pipe
- 18 - National \_\_\_\_\_ Board
- 19 - manufacturer of steel coil and line pipe for southern sections
- 20 - U.S. counterpart to NPA Commissioner, Mitchell Sharp

#### Down

- 2 - company of men working in the field
- 3 - awarded first construction related contract by the Dept. of Transportation for the U.S. portion of the pipeline
- 4 - advanced construction of the southern segments of the gas pipeline
- 6 - Dempster \_\_\_\_\_
- 7 - construction of the Alaska Highway pipeline is a massive \_\_\_\_\_
- 9 - Minister responsible for the NPA
- 10 - gas from the Alaska Highway pipeline will be shipped to the lower \_\_\_\_\_ states
- 12 - Exxon, Atlantic Richfield and Sohio are owners of this gas
- 14 - amount of work one man can accomplish in one year
- 15 - landowner hearings held here in June



The Northern Pipeline Agency was created by Parliament in April, 1978 to oversee the planning and construction of the Alaska Highway gas pipeline project in Canada. Enquiries or suggestions are welcome and may be directed to:

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