## **Opportunity Measures** for Natives and Women

Since construction of the Eastern Leg of the Alaska Highway gas pipeline in Alberta and Saskatchewan began last May, about 8.5 percent of the crew has consisted of native people and five percent of women. Over this same period approximately 20 Indians from the Kootenay Indian Area Council based in Cranbrook, B.C. were employed with a local native firm working on revegetation of the southeastern British Columbia portion of the pipeline's Western Leg, constructed last winter. In the past year, at least four other native contractors have participated in the pipeline project in areas such as right-of-way clearing and pipe unloading in Alberta, south B.C. and in the Yukon at the Quill Creek test facility.

Encouragement and provisions for training and employment opportunities for Indians, Metis, non-status Indians and women in construction of the pipeline in Canada are principal conditions set out by the Northern Pipeline Agency, which Foothills Pipe Lines (Yukon) Ltd., its segment companies and contractors must meet. "Call it affirmative action, call it opportunity measures. It's a commitment to help certain groups gain access to areas of the

cluded," says Wally Gryba, the Agency's Socio-Economic Manager. "The idea is to eliminate artificial, and often unintentional barriers in the system which discriminate against the hiring and promotion of native people and women in the case of the pipeline project.'

Gryba explains that the Agency's approach reflects the definition of affirmative action as outlined by the Canada Employment and Immigration Commission (CEIC), with the primary objective being a "change in the existing employment distribution." This includes identifying the groups who warrant special attention and establishing realistic goals or targets for the employment of these people as a certain ratio of the work force. within a given time frame. "We're asking for targets as opposed to quotas," notes Gryba. "A quota is very rigid — something that must be met or you face a penalty. A target on the other hand is a realistic goal you strive for and success is weighed



Under the Agency's socio-economic terms and conditions, each segment company of Foothills (Yukon) must prepare an opportunity measures plan outlining the special steps to give native people and women living along or near the pipeline route equal access to pipeline jobs and related training programs. The opportunity measures plan spells out how project employment and training information will be provided to these groups, as well as targets or percentage of the work force the company is aiming to hire.

Once construction begins, the company's implementation of the plan is closely monitored through daily reports and observations by the Agency's on-site surveillance crews and field representatives. The company also submits reports on a weekly basis, listing the number of natives and women emcontinued next page...

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Photo courtesy of Foothills Pipe Lines (Yukon) Ltd.

ployed in relation to the total work force.

The planning and monitoring process is the result of extensive collaboration between everyone concerned: Foothills, the Agency, CEIC, the Department of Indian Affairs and Northern Development (DIAND) and other federal, provincial and territorial departments, native and women's organizations, the Pipeline Contractors Association and the four pipeline unions — labourers, teamsters, operating engineers, and pipefitters and welders.

Inventories, listing the number of people interested in employment, skills they possess and what training they may require, are also essential for proper manpower planning, says A. J. (Denny) Deneumoustier, the Agency's Manager for Manpower and Labour Affairs. "Anyone undertaking a megaproject has to identify the supply of workers, especially in as highly a competitive region as Western Canada where so many projects are going at once."

About 400 people in Yukon, many of whom are native, have so far responded to a construction employment interest and skills inventory begun in May by Foothills (South Yukon). As a result, pipeline-related training programs best suited to these people's needs can be developed, Deneumoustier explains. He



Photo courtesy of Foothills Pipe Lines (Yukon) Ltc

adds that both the CEIC and the Yukon Territorial Government propose to fund a training program for Yukoners.

In north B.C. a similar inventory is underway among native communities, except that it encompasses all the major resource projects planned for the region, including coal, hydro and petrochemical development, and construction of the pipeline. Co-ordinated by CEIC and funded by DIAND and the Ministry of State for Economic Development (MSED), the inventory is being conducted by native people at the local band level. Preliminary results should be available in October.

In Alberta, the provincial government is developing special programs to improve the economic status of native people. The province provides facilities the Grouard Job Readiness Training/Lifeskills Program which is located in northern Alberta and funded through CEIC's Adult Occupational Training Act. Initiated by NOVA, AN AL-BERTA CORPORATION, several years ago, the program is geared towards training native people in basic lifeskills in order to give them access to energyrelated jobs. Since work on the Alaska Highway gas pipeline began, at least 40 Grouard graduates have obtained priority over other native people in securing project-related jobs.

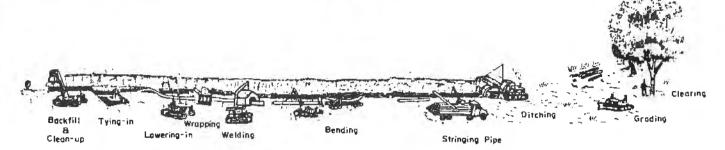
The role of the pipeline unions and the Pipeline Contractors Association in the planning and implementation of an opportunity measures program is particularly significant, Deneumoustier remarks. "Training programs and job descriptions must be designed to meet the unions' and contractors' entry qualifications. But to accommodate the opportunity measures needs of this project, these groups have modified some of their job description requirements by relaxing rules associated with previous pipeline construction experience and certain academic qualifications which are not always necessary for the actua job in question." In this way, continues Deneumoustier, native people and women, who have had little opportunity in the past to work in pipelining and to join the appropriate union, are being given a greater chance.

Deneumoustier notes the co-op eration shown by the unions, es pecially the labourers, who make up about 40 percent of the work force on the pipeline project, in meeting the Agency's opportunity measures require ments. "While their purpose is to protect the interests of their own members, we're asking them to give preference to new people for job placemen on the pipeline project."

John Hart, Regional Manager fc Western Canada of the Laborers Intenational Union of North America base in Vancouver, explains. "From the star all four unions agreed to assist by providing equal job opportunities for mino ity group members as long as they wer qualified. However, our one concern a labourers was that we would bear the responsibility of providing most of thos jobs because our union is considered at the 'stepping stone' to the pipelir trades.

continued inside back page...

# Pipeline Construction — A Giant Size Assembly Line



Synchronization is the rule in the world of pipeline construction. From the initial clearing and grading of the right-of-way to the welding and installation of the pipe in the trench, backfill and cleanup, each step follows the last in assembly line precision.

The distance a construction spread covers and the rate at which work progresses varies with topography, weather conditions, and obstacles such as road, railroad, utility line and water crossings, as illustrated by the different sections of the Eastern Leg of the Alaska Highway gas pipeline now under construction in

Alberta and Saskatchewan. The contractor, building a total of 157.5 km (97.5 mi.) of the Eastern Leg in Alberta this year, has its crew spread out over approximately 50 km (30 mi.) and is moving at an average rate of 1.3 km (0.8 mi.) per day. A full crew numbers about 360 to 400. This year's work has been slightly hampered as a result of frequent heavy rains in the early part of the summer, rugged terrain and numerous road and utility crossings.

In contrast, western Saskatchewan's flat and gently rolling prairie landscape and dry weather have enabled the con-

tractor to move at an average rate of four km (2.5 mi.) per day over a spread of about 120 km (75 mi.) with an approximate work force of 500.

Major river crossings are often handled by a specialized contractor, as with the five km (three mi.) section of the Eastern Leg which crosses the South Saskatchewan River. Although the river is only about 250 metres (820 ft.) wide at the crossing, extensive grading and erosion control measures have been required because of the steepness of the riverbanks — a drop of 61 m. (200 ft.) within 0.4 km (½ mi.) on either side.



Ditching the Red Deer river crossing in Alberta took about 10 days, using a 245 Caterpillar backhoe. A total of 271 m (889 ft.) of plpe, coated with concrete, was pulled through the river, laid in the ditch and buried with three m (10 ft.) of cover.



Ernie Paydil is Senior Surveillance Officer for the Northern Pipeline Agency, overseeing construction of the South Saskatchewan River crossing. Agency surveillance crews are on site during construction to identify problems before they become serious.



A ditcher capable of digging a trench three m (10 ft.) deep and two m (6.5 ft.) wide is used to allow for a minimum of 0.8 m (three ft.) of cover over the pipe.



The V-shaped ditchline in the Great Sand Hills area of Saskatchewan is sloped to prevent the fine sand walls from caving in.



The right-of-way is cleared, graded and ditched and the pipe strung alongside and bent to follow the rolling terrain near Olds, Alberta. Pipe bends are achieved through careful calculation and by a series of short pulls with a hydraulic bending machine.



In preparation for a river crossing, the pipe is coated with concrete to weigl it down in the riverbed.



Accurate alignment of pipe for the stringer bead or first weld is critical in producing a sound weld. The edge of the pipe end must be machine-bevelled and the pipe ends properly spaced.



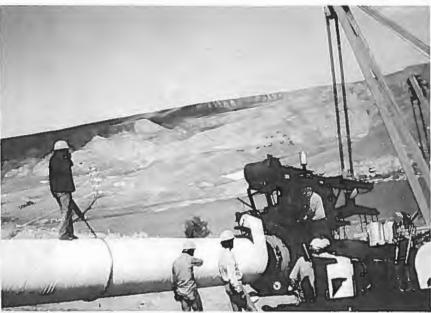
With manual or stick welding, an electric arc melts and fuses the metal of the pipe ends with the metal of the stick electrode used by the welder. Completed welds are reinforced by an additional four or five welds.



Automatic welders used on major spreads move along the pipe. The huts housing them permit welding to continue despite weather conditions. Following welding, the weld joints are covered with film negatives and an x-ray machine travels the pipe and photographs each weld to check for imperfections.



A wrapping machine cleans the pipe, coats it with tar paint, and wraps it with polyethylene tape to protect the pipe from corrosion.



A crew member - known as a "jeeper" - walks along the pipe behind the wrapping machine with an electonic circular hoop to detect faults in the tape.



Pipe is often wrapped and lowered into the ditch with sideboom tractors in a continuous motion, called cradling-in. This reduces the amount of pipe handling by eliminating the steps of placing the pipe onto skids and then picking it up later for lowering-in.



Gaps in the pipeline which require tying-in are left at road, railroad, water crossings and game/farm animal crossings. At tie-ins extra pipe is cut off, the edges bevelled, welds are made and protective tape is then applied.

#### To complete the job ...

Soil excavated from the trench is replaced over the pipe. Across farm lands, the topsoil is carefully stripped before ditching, preserved and returned after backfill operations. Restoring the right-of-way to its original condition, or clean-up, follows. The completed pipeline is then ready for hydrostatic testing which involves pumping pressurized water through the line in sections to check for leaks or defects in the pipe. Finally, the right-of-way is cuttivated and revegetated, using native grasses where required.

## Continued . . . Opponinity Measures for Natives and Women



Photo courtesy of Foothills Pipe Lines (Yukon) Ltd.

"To fulfill our commitment, but also keep a lid on it to the extent that there would also be opportunities for our own members, we agreed to take one native person or woman for every one that the three other unions combined took." According to Hart, the system worked well during Western Leg construction last year in south B.C. and Alberta, and again this year on the Eastern Leg, in Alberta and Saskatchewan. "We also provided the native people working on the short term clearing job in south B.C. with all the appropriate union benefits but did not require them to join the unions as a condition of employment, although we encouraged it." As a result, 27 Indians from the Kootenay Indian Area Council became union members, including several women.

"Western Leg construction got off to a rapid start," recalls Denny Deneumoustier. The Canadian Cabinet's decision to proceed caught everybody in a time squeeze, especially in terms of setting targets for the employment of natives and women and carrying out training programs, he points out. "Despite the circumstances, the participation rate of native people on the project between August, 1980 and May, 1981 was a respectable 7.95 percent in Alberta and 7.1 percent in B.C."

Deneumoustier acknowledges the involvement of women in Western Leg construction was more modest. "The dif-

ficulty women have is underemployment, not unemployment", he remarks. "For a waitress to become a welder means a significant change in role and a considerable amount of training. It doesn't happen overnight."

Linda Coupal, Co-ordinator of the Cranbrook Women's Resource Group contends the training provision was overlooked with Western Leg construction in south B.C., and that local women should have been given more adequate job and training opportunities. "At least 30 women who came to us showed genuine interest in pipeline work, but for one reason or another, only one that I know of was hired."Coupal suggests that a more hard-line affirmative action policy, calling for definite quotas should be established and entrenched in law. "Any change in the status quo begins with the fundamental, law-making stage," she stresses.

Lexine Cayenne, who works with the Native Outreach program for the Kootenay Indian Area Council, agrees with Coupal that more attention should have been paid to training in south B.C., even though the major part of the project lasted for only six months. "Those people who could have been trained for some of the better-paying or more highly-skilled positions were not given the chance. That's why the majority of our people joined the labourers, whereas only one qualified for the team-

sters union and two gained entry to the operating engineers union."

The Agency's socio-economic terms and conditions for the south B.C. segment of the pipeline project require the company to provide training and employment opportunities. "The short duration and tight scheduling of Western Leg construction, aggravated by the delay in regulatory approvals, made the training requirement impractical," explains Elden Schorn, former B.C. Administrator for the Agency. "This was discussed with the native and women's groups in southern B.C. before construction began."

Area Council Co-ordinator Sophie Pierre notes that about 50 native people obtained jobs in the clearing and pipe off-loading work through the efforts of the Council office and the Northern Native Development Corporation (NNDC). More recently, with the help of the Agency, the Council negotiated the revegetation contract involving about 20 people. However, Pierre suggests more native people should have received work on a longer term basis with the main contractor during actual construction.

"We saw a successful approach to Indian employment on the project in south B.C. through the direct contracting with NNDC", Elden Schorn remarks. "But once these clearing and pipe offloading contracts were over, at a relatively early phase of the project, almost no natives remained on the job because few had been employed directly by the main contractor." Schorn maintains that the situation may have been avoided had a greater effort been made by all parties concerned to get more native people involved with the main contractor, well before the clearing and pipe off-loading work was finished.

It was a learning experience for everyone, including the Agency, admits Schorn, since Western Leg construction was the first application of an opportunity measures program on the pipeline project. "Between now and when mainline construction begins in Alberta, north B.C. and Yukon, there is adequate lead time to undertake thorough training programs and develop a good working relationship between the company, contractors, unions, CEIC and the native and women's groups concerned," he concludes.

### **News In Brief**

Activity at the Quill Creek test facility 300 km (186 mi.) northwest of Whitehorse, resumed after a five-month lull. Foothills Pipe Lines (South Yukon) Ltd. began a program September 15 to evaluate procedures for building access roads and work pads in permafrost areas during the period when the layer of ground above the permafrost has thawed to a seasonal maximum depth. In the Quill Creek area, the required depth is at least 0.6 m (two ft.).

The company is building a granular work pad, 200 m (656 ft.) by approximately 10-12 m (33-39 ft.), divided into four parts. Construction techniques to be tested are insulated and uninsulated granular pads on ungraded ground, an uninsulated granular pad over filter cloth on ungraded ground, and an insulated granular pad built over a frozen sublayer of soil, after removal of the thawed surface layer.

Personnel on the project are expected to peak at 60, consisting of truck drivers, equipment operators and labourers, as well as supervisors and engineering staff of Foothills (South Yukon).

Last November, the company established the Quill Creek test facility for pipeline design and installation procedures in discontinuous permafrost along a five km (three mi.) stretch of the Haines-Fairbanks right-of-way between Quill and Burwash Creeks. The major portion of construction at the site was completed last winter, including gravel

processing, right-of-way clearing and pipe installation in both underground ditches and aboveground embankments. Experiments were also conducted in ditching preparation and erosion control methods on ice-rich slopes.

Results of the program, expected to be concluded by mid-October, will help determine the feasibility of summer construction of access roads and work pads in terrain subject to seasonal freezing and thawing, where pipe installation in aboveground embankments is planned.

The National Energy Board (NEB) on August 21 released its decision, based on a hearing held last spring in Ottawa on the tolls to be charged by Foothills Pipe Lines (Yukon) Ltd. in the operation of the Western Leg of the Alaska Highway gas pipeline, and on the final design cost estimates for the Western and Eastern Leg facilities in Canada.

The NEB disallowed about two percent of the total estimates for the Western Leg running through southwestern Alberta and southeastern B.C., and about five percent for the Eastern Leg extending east through Alberta and into southwestern Saskatchewan. The company had estimated \$167,379,000 and \$653,942,000 for the Western and Eastern Legs respectively, covering construction of 213 km (133 mi.) of pipeline and a meter station on the Western Leg and 635 km (397 mi.) of pipeline, three compressor stations and a meter station

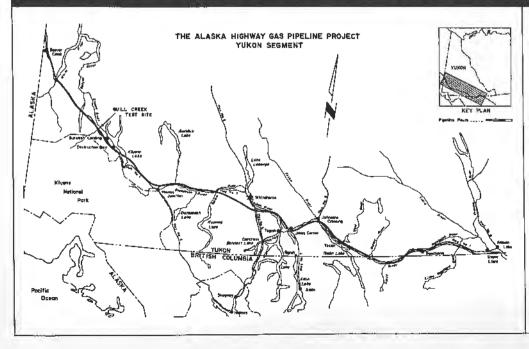
on the Eastern Leg.

In reviewing the cost of service toll for the Western Leg, the NEB approved the operating and maintenance budgets as filed, but did not approve an application from Foothills (Yukon) for a change in the method of calculation of the provision for income taxes at this time.

Pipeline welders accepted a new two-year contract on August 6, ending a walkout which began on July 26. The agreement reached between the union and the Pipeline Contractors Association of Canada raises the welders' base pay to \$18 an hour from \$14.11, retroactive to last May 1, and then to \$20.25 in 1982. The pay increase incorporates the mileage and job completion bonuses the welders received under the old contract.

Although the strike interrupted work on the Eastern Leg of the pipeline in Alberta and Saskatchewan, construction crews were back on the job by August 10.

The Northern Pipeline Agency is cor sidering recommendations made by the federal Environmental Assessment and Review Panel (EARP) to route the Alaska Highway gas pipeline north and west of Whitehorse. Foothills Pipe Lines (South Yukon) Ltd. has proposed to bypass the city by routing the line through the lbex Valley, south of Whitehorse. The 90 km (56 mi.) Iber route and alternatives were the focus of a hearing held last June in Whitehorse.



## **Pipeline**

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

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