

## INSTITUTE OF CURRENT WORLD AFFAIRS

DAWJ--8  
The Western Provinces in  
the Middle North II  
"Abbotsford to Inuvik"

Scott Polar Research Institute,  
Cambridge University,  
Cambridge,  
England.

March 15th, 1968.

Richard H. Nolte, Esq.,  
Executive Director,  
Institute of Current World Affairs,  
366 Madison Avenue,  
New York 17, N.Y.

Dear Dick:

Abbotsford is a town in southern British Columbia on the U.S. border. Inuvik is 2,000 miles north near the shores of the Arctic Ocean and well beyond B.C.'s lively jurisdiction. But never mind the facts. "From Abbotsford to Inuvik," became a fanciful slogan to sum up B.C.'s push into the middle north.

The results of B.C.'s expansion into the north have been showing up in the last ten years but the story is much older. One of its beginnings was in 1891 when it was proposed to build a railway from Vancouver into the central interior of the province about four hundred miles north-east. The railway was to be called the Pacific Great Eastern (PGE) and according to an early account the construction of this line was to be an epic of "courage, hard-work and foresight...."

The emphasis of this prediction was on "foresight." The line was begun in 1912 and did not reach its two terminals - Vancouver and Prince George, until forty-four years later. Until 1956 the PGE was a railway which began nowhere and ended nowhere. In the 1920's the province had to take over the existing track and by 1940 it had paid out \$90,000,000 to keep the line from bankruptcy. It was called many things in those years but its most pungent nickname was "Past God's Endurance." It is worth remembering too that not long before the transcontinental Canadian Pacific Railway was heralded as "two streaks of rust across the wilderness."

In 1967, for the first time in its history, the PGE made a profit. Like everything else in northern B.C., the dream was about half a century ahead of reality.

Reality now is summed up by the 1966 Annual Review of the Economic Council of Canada which says that British Columbia's growth is the "most widely based economic expansion of all the (Canadian) regions." Provincial population has increased by 81% in the last twenty years. Since 1955 the value of forest harvests has risen from \$634 million to \$1,037 million. In 1950 there were no oil or gas wells in the province; in 1967 crude oil and natural gas production was worth \$54 million. The pipeline industry which followed the oil and gas now represents an investment of about \$600 million. Hydro and thermal power in the province has increased by 185% in the last fourteen years. Railway freight between 1958 and 1966 increased 75%. The Port of Vancouver handled about

23 million tons of cargo in 1967 and for the first time became Canada's busiest port.

Much of this new economic development in the province derives from B.C.'s northern interior, and what is happening there is a good clinical history of what is going on elsewhere in the northern hinterland of Canada's four western provinces.

British Columbia, like the rest of Canada, has always had to bite off more than its small population could chew. Geography, climate and distance have made the overhead terrifically expensive. Why are the times changing? Why, after so long, is this northern hinterland becoming a place to make money?

The basic answers to these questions lie outside of the Canadian environment. Larger world markets, growing population, the need for more raw materials and most of the fundamental refinements in modern technology are hardly matters for which Canada or B.C. can take credit. The world is changing us and, among other things, these changes are making the development of the middle north feasible and often profitable. The question which a Canadian should ask is how we are responding in Canada to this new role for our middle north? British Columbia's experience gives some useful clues.

1. Transportation. It was a combination of good luck and good management which gave B.C. one of the most extensive overland communication networks in the middle regions of Canada. The good luck was the legacy of wartime highways. The 1,500 miles of Alaska Highway from Dawson Creek to the Yukon and Alaska were built in nine months. The Highway runs through a part of B.C. and Yukon which took a patrol of the R.C.M.P. a grim fourteen months to cover in 1897-98. Now you can drive the nine hundred miles from central B.C. to Whitehorse, Yukon in two days.

The good management began with the PGE, though at the time the venture was more an act of faith. The railway was destined to show no good results for half a century. It still required faith in 1954 when the decision was made to complete the line to Prince George, then a bush town of less than 10,000 voters which seemingly deserved scant political or economic attention.

After that, there were other highways, trails and spur lines for the railway. The railroad was built with provincial government money; the roads either by the province or under Ottawa's Roads to Resources Programme.

I've never discovered any report or study relating these new overland routes in B.C. to subsequent economic developments. But there can be no doubt which was the chicken and the egg here; transportation came first and everything else followed.

# ROADS AND RAILWAYS IN NORTHERN BRITISH COLUMBIA

SCALE 1" = 170 MI.

## LEGEND

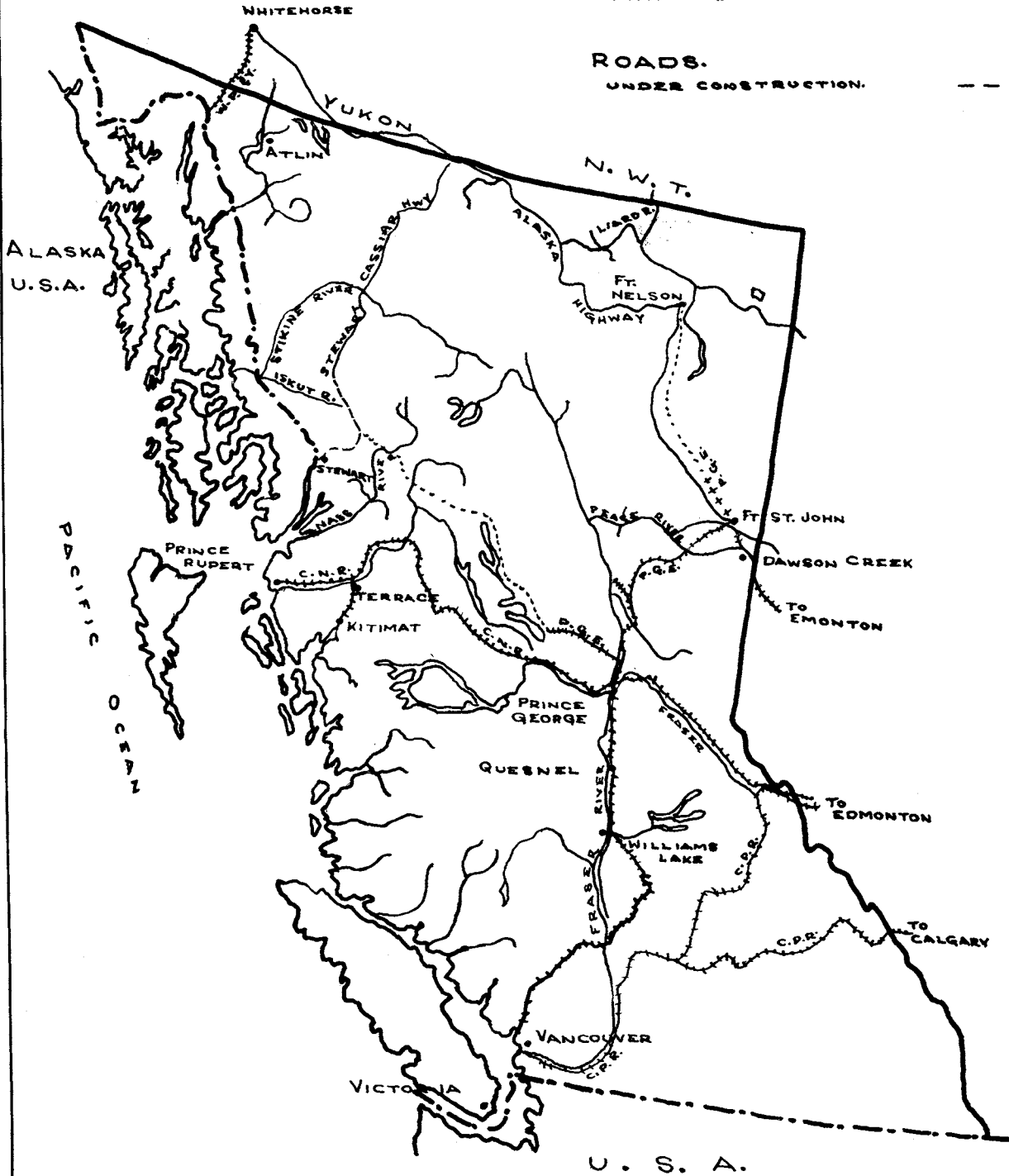
### RAILWAYS.

UNDER CONSTRUCTION + + + +

PROPOSED .....

### ROADS.

UNDER CONSTRUCTION - - - -



2. Oil and Gas. Canada's first major oil and gas discovery was in 1947 at Leduc, a small town outside Edmonton, Alberta. This was the modern beginning of an industry in the west which is now producing over \$1 billion of oil and gas a year. After 1950 the search for oil spread out of Alberta into the northeast corner of British Columbia and into that part of the western Canada sedimentary basin between Dawson Creek and Fort Nelson. Both these towns are on the Alaska Highway and B.C.'s new oil and gas wells are still clustered within striking distance of either side of the Highway.

There are now about 900 producing wells in B.C. which account for 5% of Canadian crude oil production and 10% of her natural gas. Proven oil reserves in northeastern British Columbia are five million barrels but actual reserves are probably much higher. Today, for every two new wells drilled there is still one discovery. The north American ratio is an average of one discovery for every nine wells drilled.

What has this petroleum meant to B.C. and to the country between Dawson Creek and Fort Nelson ?

(a) Its importance to the provincial government can be measured in dollars and cents. Oil royalties are now more than \$100 million annually, more than the B.C. government derives from the province's wealthy forests.

(b) Hundreds of million dollars have been spent in exploration. In 1964, for example, \$50.1 million were invested in local drilling and development in northeastern B.C. The population in the region has more than doubled since 1950, a growth accounted for by the injection of this money and by goods and services that petroleum exploration requires on the ground. But, for all this money, the population of northeastern B.C. is still only 41,000 or 2.2% of the province's total of 1,900,000.

(c) A by-product of this search for petroleum has been the growth of more access roads and trails off the Alaska Highway, something which has spurred local settlement and even agriculture. A producing oil field may not employ many people locally but with its seismic trails it tends to open up the country more than a mine or a hydro site.

(d) The pipelines have followed. There is a 30 inch natural gas line which begins a hundred miles south of the B.C.-Yukon border and runs some 850 miles down to Vancouver. From Dawson Creek this is paralleled by an oil pipeline. I have no definite figures for the cost of this pipeline network from northeastern B.C. but I have been told it is about \$600 million.

(e) Refineries and the petrochemical industry are still concentrated around Vancouver on the lower mainland. They are likely to remain so. Cheap, local hydro power around the Peace River within a short distance of Dawson Creek may mean some development of a light manufacturing industry, however.

For the future, there is yet no end in sight. Discoveries in neighbouring Alberta very near the 60° parallel now point the way to more petroleum farther north in B.C., Alberta, the Northwest Territories and the Yukon. This whole provincial-territorial region may yet contain more oil and gas than the fields in southern Alberta and Saskatchewan. We can expect that the local northern economies will continue to grow on exploration expenditures.

3. Pulp and Paper. B.C.'s forest production in 1966 was worth \$1,037 million. There are in B.C. 118 million acres of commercial timber, about half the area of the whole province. This is 52% of Canada's total timber and 60% of its softwood resources.

The pulp and paper industry in the province began in the southwest in 1894 and until recently it was still concentrated in the rain forests of southern coasts of the province. After 1960 there was a distinct shift in this industry to the northern interior. Fourteen new pulp and paper mills are now building or scheduled to be built in the interior along the PGE and near Prince George.

This expansion will mean that for the first time the pulp and paper industry will be almost evenly divided between coast and interior. The money is coming from the U.S., England, Scandinavia, Finland and Japan as well as from Canadian firms.

In 1965 there was one pulp mill in the central interior (at Prince George) with a capacity of 200,000 tons a year. Three new mills around this region were scheduled for operation in 1966 with an additional capacity of 720,000 tons of pulp and 110,000 tons of paper. By the early 1970's at least nine more mills are planned in the area. These will cost some \$570 million and will have a combined capacity of 2,005,000 tons of pulp and 180,000 tons of paper. (See map 2).

All of this new production will come from managed forests where perpetual yield is believed to be possible. For the future, the provincial government hopes that all or most of the raw material for these mills will be the residues of logging and sawmill operations. Now up to 60% of pulp production in the province is from this kind of by-product waste.

# PULP AND PAPER MILLS IN NORTHERN BRITISH COLUMBIA

SCALE 1" = 190 MI.

## LEGEND

OPERATING A

UNDER CONSTRUCTION B

PLANNED C

TALKED ABOUT D

D STIKINE ISKUT MILLS

C BULKLEY VALLEY PULP & TIMBER CO. LTD.

C PORTAL FOREST INDUSTRIES LTD.

A SKEENA KRAFT LTD.

A COLUMBIA CELLULOSE CO. LTD.

C EUROCAN PULP & PAPER CO. LTD.

A NORTHWOOD PULP LTD.

A PRINCE GEORGE PULP & PAPER LTD.

C GREATER PEACE FOREST PRODUCT LTD.

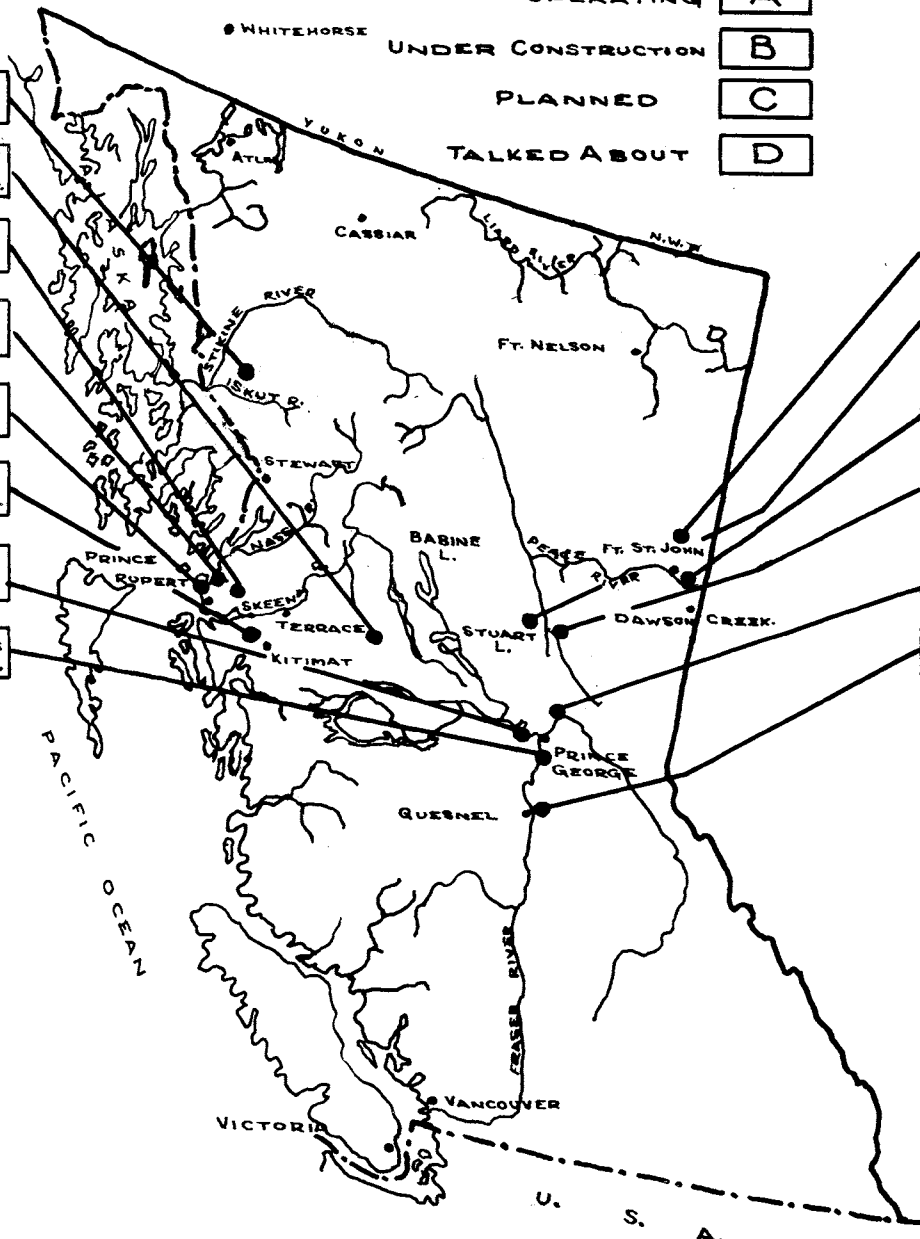
C CATTERMOLE TIMBER LTD.

C PEACE RIVER KRAFT LTD.

C ALEXANDRA FOREST IND. LTD.

B INTERCONTINENTAL PULP CO. LTD.

C CARIBOO PULP & PAPER LTD.



Why is the industry moving north? There are at least three local factors: good transportation via the PGE; cheap power; and the salesmanship of the provincial government in attracting foreign capital.

There is more economic timber in the northern reaches of B.C. for which as yet there are no definite plans.

4. Water. When the B.C. government decided in 1954 to complete the building of the PGE to Prince George the decision was not popular. It was generally thought that the government was only pouring more of the good taxpayer's money into a clearly disastrous government investment. It is difficult to know what the Cabinet of the day had in mind. A good deal of their faith in the interior of the province must have been based on hunch. My own guess is that even in 1954 however, the government had at least one prime motive in looking north; they went there in a search for energy, particularly hydro power.

The Portage Mountain dam on the Peace River about seventy miles northwest of Dawson Creek was first surveyed in detail in 1956 and by 1961 definite plans had been laid for a project there. The power house will begin generating this year the first of the 2,300,000 KW the plant is designed to produce. The dam, generating system, and the 574 mile transmission line to Vancouver will cost between \$700 and \$800 million.

After the Peace there will still be some eleven million KW of undeveloped hydro potential in northern B.C.

5. Mining. Petroleum, pulp and paper, and water power have far outstripped mining in value in northern B.C. It is only in the past two or three years that the tempo of mineral exploration there has begun to increase.

I have not been able to track down any published figures for mines in northern B.C. The only growth indicator is for the whole of the province. In 1956 mineral production in B.C. was valued at \$189 million; in 1967 it was about \$380 million. By far the largest share of this production comes from the coast and the southern interior. In 1966 there were only three large mines in operation north of Prince George. The prospects look good however, particularly in the northwest behind the coastal mountains, and in the north-eastern part of the province along the Rocky Mountain Trench. Mining will have its day in northern B.C.

6. The Future. Prince George will likely remain the pivot for future development. The PGE now runs from Prince George to Fort St. John about 200 miles N.N.E., and from there another extension is now going towards Fort Nelson 300 miles

north again. This eastern spur of the railway will run through the centre of the Peace River-Liard region of north-eastern B.C. and may stimulate the development of some 500,000 acres of new agricultural land between Fort St. John and Fort Nelson. Despite the great increase in oil and gas exploration, agriculture is still the largest employer around the Peace. More agriculture is certainly feasible but will it be economic?

A second spur of the PGE is to run northwest from Prince George to Fort St. James and up into the Stikine River country inland from the Alaska Panhandle. This western extension has been built for about 170 miles beyond Prince George. It is heading towards the Iskut and Stikine Rivers where there is now copper and where pulp and paper and power developments seem likely. It is too, part of the old dream of a railway to Alaska, but that is another matter.

### Conclusions.

(a) This is a new kind of frontier. It is not the frontier of the trader, the plough or of migration, like past frontiers in Canada. It is a frontier of investment, and foreign investment at that. I have no figures for total private and public expenditure in northern B.C. in the last five years but it must be between \$2 to \$3 billion.

This investment can mean several things. It will stimulate more debate in Canada about the problems of foreign money and political sovereignty; a debate which will run for several more decades before there are conclusive results. It will also mean that foreign capital other than from the U.S. may be particularly welcomed or even sought out.

(b) Governments are looking north in the hope of earning money and this in an age when all levels of administration are starved for cash. The revenues which a government can earn from industries' development of natural resources are becoming a sizeable part of the annual treasury. This fact explains a great deal of B.C.'s interest in its north.

It also gives a new dimension to the word "economic." It is difficult and often virtually impossible to discover whether a particular mine or pulp mill is economic in the sense that it shows a real profit. The taxes, royalties, incentives, subsidies and government services that lie outside the pure economist's calculations may mean that his conclusions are of dubious value. In civil service parlance however, "economic" often denotes that a government stands to show a profit in royalties even after its expenses for schools, roads, utilities and services.



It is unlikely that northern B.C., shows any government profit as yet. Even with the wartime gift of the Alaska Highway the bills for the government's northern investment must still outrun its royalties. But time may rectify this. No one forgets that the government of Alberta is richer by over \$2 billion in oil and gas royalties since 1947 and all this for a population of about 1,500,000. It is this kind of hope which takes B.C. north.

(c) This middle north is not so much a frontier as an appendage. It is not going to compete with southern Canada as a place to live or as a centre of great industry. It will always be a source of raw materials and power for the south to live off. Its role will be to increase and bolster southern institutions and wealth.

(d) In Canada, the communications, goods and services to the middle north will flow north and south. Any east-west links within the middle north will be of secondary importance and used mainly for local traffic.

(e) The development of the middle north will put more wealth into the hands of the western provinces and tend to even out the balance of power in Canada between east and west, or at least between Ontario and Quebec in the east and the prairies and the west coast.

(f) This growth northwards will have its effect on federal-provincial relations and thus on the evolution of the Canadian constitution. The provinces with a middle north will become wealthier and, collectively, they could force Ottawa to relinquish some of the power deeded to it by the British North America Act. There will also be increasing pressure over the next twenty-five years for Ottawa to give up parts of the two northern Territories to the Provinces.

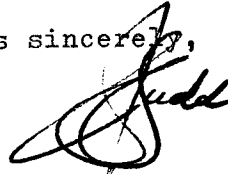
(g) It is just possible however, that a growing economy in the middle north could foster some co-operation among provincial governments and between the provinces and Ottawa. Common policies and practices for communications, exploration, conservation and the distribution of energy would benefit everyone. The Roads to Resources program of the early 1960's was a good start to this kind of shared development but now the chance for similar inter-governmental schemes seems slim.

(h) Above all, this will be a market-sensitive frontier because it produces raw materials and energy for other people to use. This will accelerate the trend towards economic planning and governments' control of the pace of resource development. And it may also draw Canadian producers into some kind of common market with their foreign consumers.

(i) Timing, for this middle north, is going to be tricky. Already it seems that atomic power will be competitive with hydro within the next decade. Oil not used in the next half century may stay in the ground. Pulp mills may someday be obsolete and in the meantime the market for their products see-saws between scarcity and glut. A disastrous financial crisis in the world's money markets would shut the middle north down tight.

British Columbia is a province with many advantages, natural and man-made, and a province which has recognized these advantages and used them to open up its middle north. It is the best example so far in Canada of the middle north being put to good use.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Judd", with a large, stylized flourish underneath.

David A. W. Judd

Received in New York March 28, 1968.