

IN THE MATTER OF the Utilities  
Commission Act, S.B.C. 1980, c. 60  
and

IN THE MATTER OF Applications  
for a Certificate of  
Public Convenience and Necessity  
for provision of Natural Gas Service  
to the District of Tumbler Ridge  
and surrounding area

DECISION

April 1, 1982

Before M. Taylor, Chairman;  
J.D.V. Newlands, Deputy Chairman; and B.M. Sullivan, Commissioner

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## I. INTRODUCTION

This Decision of the British Columbia Utilities Commission ("the Commission") and the accompanying Order are concerned with the issuance of a Certificate of Public Convenience and Necessity pertaining to distribution, transmission and processing facilities for the provision of natural gas service to the District of Tumbler Ridge and the surrounding area ("Tumbler Ridge Area").

### 1. Background

Interest in providing natural gas service in the vicinity of the North East coal properties has existed for several years. However it was not until firm commitments to the mining of the North East coal properties came about in 1981 that serious plans for natural gas service to the region were advanced. During the summer of 1981, Inland Natural Gas Co. Ltd. ("Inland"), ICG Utilities (British Columbia) Ltd. ("ICG (B.C.)") and Northland Utilities (B.C.) Limited ("Northland") each in separate correspondence, contacted the Commission to express their interest in providing natural gas service to the industrial, commercial and residential markets as they perceived them in the Tumbler Ridge Area.

Thereafter, representatives of the District of Tumbler Ridge and North East Coal Development Agency approached the Commission requesting that consideration of the provision of natural gas service to Tumbler Ridge Area be expedited.

Mr. Walsh, the Commissioner for the District of Tumbler Ridge, by letter dated September 1, 1981, expressed his concern as follows:

"As you are aware, Tumbler Ridge is the new community being constructed in conjunction with the North East Coal Development. As such we are on a very tight development schedule for the delivery of residential dwellings in time for the arrival of the town's first permanent residents in the fall of 1982.

It is, of course, crucial to our development schedule that the town's utilities be provided early enough that they do not delay construction of the dwelling units. At present, the BC Utilities Commission has several applicants before it wishing to provide the natural gas supply to the North East Coal Development. Our request is that you select an applicant as soon as possible so that they may begin the process of providing natural gas early enough to avoid delay to ourselves or other participants in the Development.

Your prompt attention to this matter is greatly appreciated."

In fact, no formal applications had yet been received by the Commission. The Commission met on September 24, 1981 and gave consideration to the letter from Mr. Walsh.

Due to the pressing need to resolve the natural gas supply question for the North East Coal project, and even though the Commission had not received a complete application to serve the

area with natural gas, it was decided that a notice be prepared for publication asking for applicants who wished to provide natural gas service to the Tumbler Ridge Area. The applications were to be received by the Commission on or before December 21, 1981 to be considered by way of a public hearing in mid February, 1982. The Commission published a notice in several newspapers on November 4 and 5, 1981, inviting applications from persons interested in providing facilities for transmission and/or distribution of natural gas to the Tumbler Ridge Area.

By December 21, 1981, the Commission received applications pursuant to Section 51 of the Utilities Commission Act for Certificates of Public Convenience and Necessity from Northland, Inland and ICG (B.C.). The ICG (B.C.) application was incomplete as at December 21, 1981 and the full details of that application were provided to the Commission on January 12, 1982.

On January 8, 1982, the Commission acted on its previous decision, and issued a formal Order that the three applications be the subject of a public hearing to be held in Dawson Creek commencing Tuesday, February 16, 1982 (Appendix A).

In response to an information request of the Commission, Denison Mines Limited ("Denison") advised the Commission on January 29, 1982, that its Quintette Coal Project ("Quintette") would be utilizing coal fired coal drying units instead of the natural gas drying units that had been selected by Denison in August, 1981. Denison's reversal of its earlier decision meant

that there would be a significant reduction in the potential natural gas market in the Tumbler Ridge Area.

The Applications of the three utilities had been structured on a sizeable gas market for the drying of coal and therefore the decision by Denison dramatically altered the markets, facilities and gas supply alternatives for the Applicants.

A prehearing conference was convened by Counsel for the Commission and held on February 5, 1982 to advise the Applicants and Intervenors of this change in the market situation.

At the prehearing conference, the District of Tumbler Ridge reconfirmed its commitment to use natural gas for heating residential and commercial premises within the townsite. If natural gas could be made available in a timely fashion at prices competitive with electricity and propane, and with a plan that permitted occupancy of residences by October 1, 1982, the District of Tumbler Ridge urged that any postponement of consideration of the applications be of short duration, stating that construction of the townsite would be in great difficulty, perhaps peril if a decision of the Commission were not made by the end of March, 1982.

In view of these developments, following the prehearing conference the Commission directed that a public hearing be rescheduled to commence on Tuesday, March 9, 1982 in Dawson Creek. A notice of rescheduled public hearing was published in the Vancouver Sun, the Vancouver Province, the Peace River Block News in Dawson Creek and Fort St. John Alaska Highway News.

By February 18, 1982, the Commission received supplementary material from each of the three original Applicants in the form of revised or clarified applications. Westcoast Transmission Company Limited ("Westcoast") also submitted a revised intervention.

The hearing was opened in Dawson Creek on March 9, 1982 and continued through Saturday, March 13, 1982, at the George Dawson Inn, Dawson Creek. The hearing reconvened in Vancouver on Monday, March 15, 1982 and continued by evening sittings to completion on March 25, 1982.

## 2. Proposals

Each Applicant proposed more than one alternative to supply gas to the Tumbler Ridge Area and except for the distribution systems all the proposed alternatives are unique in some detail. The three Applicants proposed to build a double main distribution system using plastic pipe and front-lot service access for all alternatives. The following discussion outlines salient features of each Applicant's proposed alternatives.

### (a) Northland

Northland's preferred alternative was to construct and operate a distribution system for Tumbler Ridge only. They were prepared to accept processed gas from any source and would rely on Westcoast (or similarly positioned carrier) to supply the gas. They would prefer that the gas came from the Grizzly gas fields for this alternative because



this would make the whole project more economical. If gas loads for building heat or other purposes at the coal properties eventuate, that would only make their project more attractive economically. In this alternative Northland proposed to buy the gas at the "off-line" price at Tumbler Ridge.

Northland's second alternative was to build and operate a gas processing plant near the Grizzly fields and a transmission system which would serve Quintette and Tumbler Ridge in addition to the distribution system within Tumbler Ridge. This proposal called for an amine type gas sweetening plant with an iron sponge back-up. Their transmission system would comprise a 4-inch pipe from the process plant to the Quintette lateral with a 2-inch pipe to Quintette and a 3-inch pipe to the townsite.

Northland were confident that there would be sufficient deliverability from existing wells in the Grizzly fields for at least 5 to 8 years. Beyond that they believed that Quasar Petroleum Ltd. ("Quasar") would find it economic to do in-fill drilling if markets for the gas were available. Northland were not in favour of dedication of the gas reserves because it would make further drilling hard to finance. They were prepared to utilize portable propane-air units to improve security of supply if that ever became necessary.

(b) ICG (B.C.)

ICG (B.C.) proposed three alternatives. Their preferred alternative was to supply gas to the Tumbler Ridge Area from the Grizzly fields. They preferred this alternative because it is competitive economically with other fuels without capital contribution or subsidies. In this alternative they assumed that a third party would build and operate a twin iron sponge gas sweetening plant and charge ICG (B.C.) for this service. They proposed to buy gas at the domestic field price and add on the cost of processing, transmission and distribution.

They believed that the existing wells in the Grizzly fields will be able to supply gas until after 1987 and favoured dedication of production from the existing wells to the Tumbler Ridge Area. If dedication were not acceptable to all parties, they believed the Grizzly fields should still be used because it would be possible to supply gas from the Westcoast system near Pine River at a future time if this became necessary.

Their second alternative was to bring gas from the Westcoast system near Pine River. They believed this approach would provide the most secure source of supply. Either ICG (B.C.) or Westcoast could construct the line although ICG (B.C.) believed that they could construct it more economically. If ICG (B.C.) were to build the line they would want the British Columbia Petroleum Corporation ("BCPC") to roll the cost into the provincial cost of service. The resulting cost of gas would be similar to other off-line sales such as they enjoy at Fort St. John.

Their third alternative was to build a permanent or semi-permanent propane system at Tumbler Ridge to serve the townsite only. This would provide a secure source of supply and would permit natural gas from the Grizzly fields or elsewhere to be attached at a later time. They acknowledged that the drawback of this plan would be its cost. It would require a provincial subsidy of about \$1 million dollars to make the gas competitive with alternative fuels.

(c) Inland

Inland's first proposal was to build a 6-inch line from the Grizzly fields to a point near Tumbler Ridge. A 3-inch lateral would serve Quintette and a 4-inch lateral would serve Tumbler Ridge. Processing would be done by others. They would buy gas from Westcoast under their existing contractual arrangements and all costs would be rolled-in to Inland's province-wide cost of service. Inland argued that this proposal meets the requirements of their main extension policy.

Inland had no problems with the reserves that are available from the Nikanassin formations of the Grizzly fields. In order to make deliverability from the fields more certain they proposed a concept which would allow additional sales of gas initially but would also protect long-term supply by means of a deliverability test.

Inland's second proposal was to bring gas from the Westcoast system near Pine River. They would prefer to have the security of gas supply inherent in this alternative but acknowledged that it is costly and is quite uneconomic. It would require a major contribution in some form or another from some place but they did not propose how this would be achieved.

## II. MARKETS

Potential markets in the Tumbler Ridge Area include a number of coal properties as well as Tumbler Ridge where it is proposed that employees of the coal companies and service organizations would be housed.

Plans concerning two of the coal mines are well advanced. These are Denison's Quintette Coal Project and Teck Corporation's mine ("Teck"). Gas consumption at these mines is anticipated to begin in 1983 if gas is available. Planning has commenced for a third mine, Petro-Canada's Monkman Coal Project. It is scheduled to begin operation in 1985 and would not be at full capacity until 1988.

There are no active plans for other coal properties in the Tumbler Ridge Area at the present time although it is clear from the design capacity of the railway and port facilities that other mines are a possibility.

The initial applications were submitted on the basis of gas drying of coal. On January 29, 1982 Denison advised the Commission by letter that a decision had been made to utilize coal for that purpose and indicated reduced energy requirements based on space heating only at the three sites.

As a consequence of Denison's decision and deferment of certain other mining operations which affected the Tumbler Ridge townsite the Commission requested updated information from the District of Tumbler Ridge. This information along

with the Denison letter was distributed to the Applicants and Intervenors of record.

Evidence was given at the hearing by Quintette and Teck that natural gas would need to cost about \$0.65/Mcf in order to compete with coal for coal drying. Since a satisfactory solution to environmental and mechanical problems had been found, natural gas had been eliminated from consideration for Quintette and in all likelihood from other coal drying applications in the region. In support of this statement Teck announced their decision was the same as Quintette's.

Evidence given by Quintette indicated that gas was a likely selection for space heating loads but the final decision would be based on economics of alternative fuels and other technical considerations.

The Denison letter, District of Tumbler Ridge letter and those from Teck, Petro-Canada and other mining interests formed the base data for the three Applicants and Westcoast. The interpretation and treatment of this information by the Applicants follows.

(a) Northland

Northland originally based their market projections on the attachment of the substantial coal drying load at Quintette and the townsite market provided by the District of Tumbler Ridge "Northeast Sector B.C. Information" package. Subsequent developments resulted in reduced markets for both Quintette and the townsite.

Northland have not included Teck's prospective load in their projections. The other holders of coal leases in the area including Petro-Canada have not been considered by Northland at this time. Northland's estimated requirements for Tumbler Ridge and Quintette are as follows:

	<u>1982</u>		<u>1986</u>	
	<u>Peak Day (GJ)</u>	<u>Annual (GJ)</u>	<u>Peak Day (GJ)</u>	<u>Annual (GJ)</u>
Tumbler Ridge				
Residential	1,275	25,000	2,235	233,000
Commercial	<u>580</u>	<u>16,000</u>	<u>1,905</u>	<u>185,000</u>
Sub total	1,855	41,000	4,140	418,000
Quintette	<u>610</u>	<u>25,000</u>	<u>1,775</u>	<u>223,000</u>
TOTAL	<u>2,465</u>	<u>66,000</u>	<u>5,915</u>	<u>641,000</u>

Northland indicated that the Quintette load was based on net numbers and should be increased to take into account the average 75% efficiency experience in space heating applications. The resulting number would be in the order of 300,000 GJ per year in 1983 and onwards giving a total load of 718,000 GJ for mine and townsite.

The annual use for residential and commercial was based on a mix of single family dwellings, town houses, and apartments supplied by Tumbler Ridge's consultants. Use per customer was based on local experience.

(b) ICG (B.C.)

ICG (B.C.) recognized the decision of Denison to use coal for coal drying in their submission of February 1982 and based their market potential on that information. The potential for future gas markets by Teck, Petro-Canada and several other companies was recognized but ICG (B.C.) did not allocate gas load for these markets.

The market for natural gas was therefore confined to the space heating load at Quintette and the residential and commercial market in the townsite of Tumbler Ridge. "The Conceptual Plan Tumbler Ridge North East Sector British Columbia Update" prepared for the Ministry of Municipal Affairs by R.A. Rabnett Associates was used as an information source.

Unit consumption factors based on the company's experience in similar communities were applied to the various customer classifications to produce peak day and annual consumption volumes.

	1982 Annual (GJ)	1986 Annual (GJ)
Tumbler Ridge		
Residential	15,640	243,870
Commercial	13,480	140,130
Sub total	29,120	384,000
Quintette	75,000	300,000
TOTAL	104,120	684,000

The company anticipated 100% capture of the residential and commercial market.



(c) Inland

Inland's initial application of December 1981 was amended by the company for the submission made in February 1982. The original expectation of the coal drying load for Quintette was eliminated in light of the Denison letter of January 29, 1982. The space heating load at Quintette's surface plant and Babcock mine site were substituted in its place.

Inland's residential and commercial market estimates were also amended to reflect lower population confirmed by a letter from the District of Tumbler Ridge to the Commission dated February 2, 1982.

Annual and Peak Day sales were submitted as follows:

	<u>1983</u>		<u>1987</u>	
	<u>Annual (MMBTU)</u>	<u>Peak Day (MMBTU)</u>	<u>Annual (MMBTU)</u>	<u>Peak Day (MMBTU)</u>
Tumbler Ridge				
Residential	81,143	410	194,426	1,810
Commercial	<u>59,623</u>	<u>250</u>	<u>133,639</u>	<u>1,050</u>
Sub total	140,766	660	328,065	2,860
Quintette	<u>113,800</u>		<u>325,237</u>	
TOTAL	<u>254,566</u>		<u>653,302</u>	

The residential consumption was developed from the mix of single-family, duplexes, townhouses and mobile homes taken from the Conceptual Plan, Tumbler Ridge, Northeast Sector B.C. Update.

The Quintette load was adjusted downwards during the hearing approximately 300 MMBTU to reflect furnace efficiencies of 75%.

### III. NATURAL GAS SUPPLY

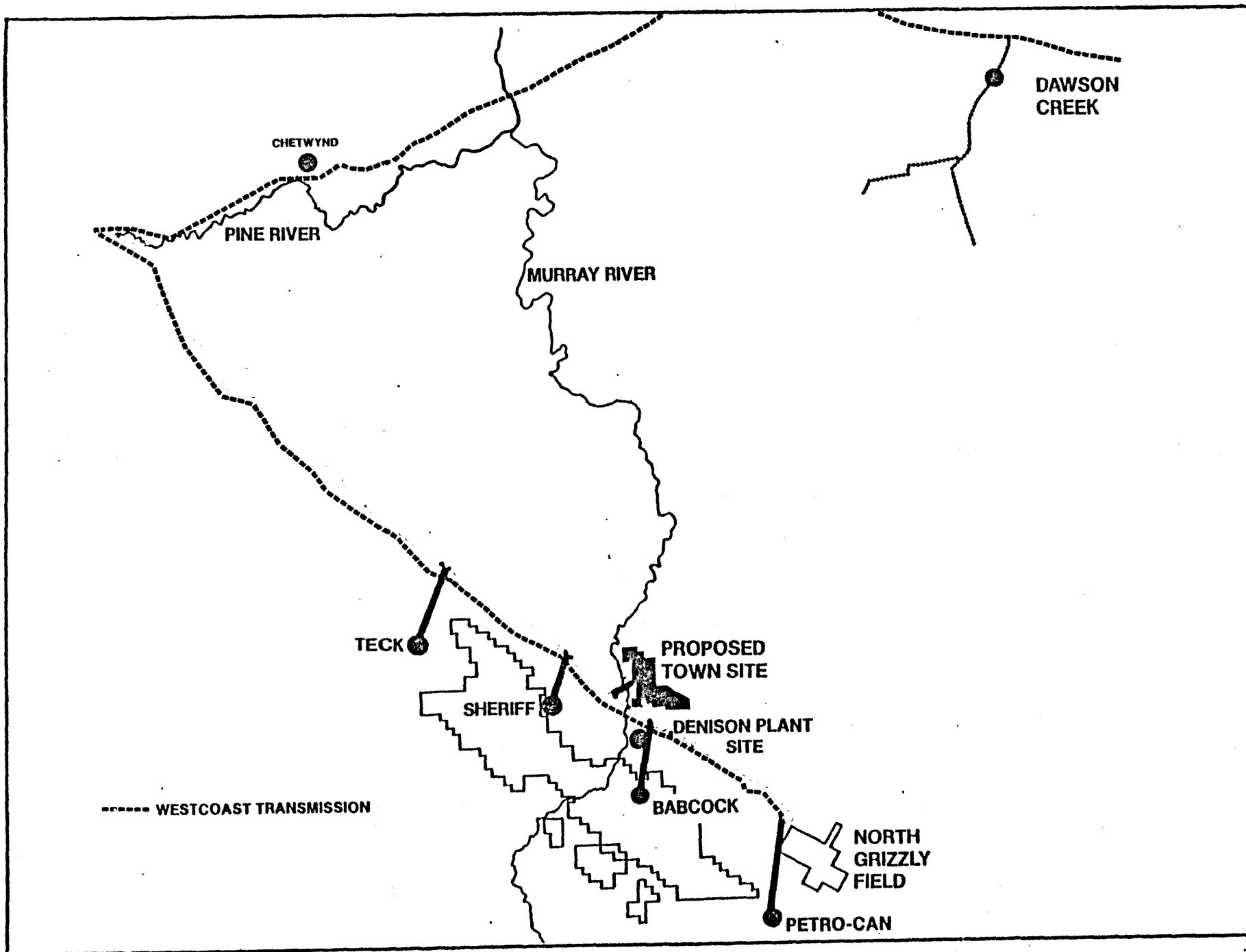
The Tumbler Ridge Area is located approximately 50 miles to the south of Dawson Creek and Chetwynd in the vicinity of the North and South Grizzly natural gas fields ("Grizzly fields").

Westcoast has installed gathering lines to several of the gas fields in the Tumbler Ridge Area and field gas is transmitted by the Grizzly Valley sour gas pipeline to the processing plant located near Chetwynd where it is processed to Westcoast's pipeline specifications.

The Grizzly Valley gas pipeline carrying unprocessed field gas runs in close proximity to the town and the coal properties (see map) but the field gas is not marketable until its high hydrogen sulphide and carbon dioxide contents are significantly reduced. Due to potentially high concentration of sulphur it is expensive to process the sour gas.

In addition to the abundant supply of sour gas in the area there also exists a limited supply of semi-sweet gas which could be processed at reasonable costs. The semi-sweet gas which is currently under contract to the BCPC is principally from the Nikanassin formation of the Grizzly fields. The operator of the fields is Quasar who act on behalf of the many owners of the wells.

Two methods of providing natural gas were discussed at length at the hearing. The first option for natural gas supply was to utilize the semi-sweet gas from the Grizzly fields and, after



local processing, transmit the gas to the town and coal properties. The second proposal was to obtain marketable quality natural gas from Westcoast's Pine River processing plant and transmit this back to the Tumbler Ridge Area by a pipeline adjacent to the existing Grizzly Valley sour gas pipeline.

#### 1. Supply from Pine River Plant

In the initial set of applications of December, 1981 all the Applicants included a proposal or option to build a pipeline from the Pine River processing plant to the coal properties and the town. At that time the economics of building facilities which would cost in excess of \$30 million was not unfavourable due to the high volume of expected gas sales to the coal properties for drying of coal.

As a result of the coal companies' inability to commit to gas use for coal drying and the decision by Quintette to use coal fired dryers, the Applicants revised their applications to account for the significantly diminished load.

In their revised application Northland continued to rely on gas supply from the local semi-sweet Grizzly fields as their preferred supply method and the company abandoned their option to supply gas from Pine River.

The ICG (B.C.) revised application shifted to a preferred supply of natural gas from the local fields. However the company did not abandon their earlier proposal to bring gas from Pine River.

Inland also shifted their proposal to reliance on sweet gas from the Grizzly fields. The company did not abandon the Pine River option although they characterized it as being on its last gasp because it was contingent on contributions to justify the line.

Westcoast prepared an intervention to the proceedings which proposed that a line be built from Pine River to the markets in the Tumbler Ridge Area. The line would make use of portions of the existing Grizzly Valley gathering line which are to be removed from service in 1982.

## 2. Supply from Grizzly Fields

The extent of the reserves and deliverability of semi-sweet gas from the Nikanassin formation of the Grizzly fields were discussed at length at the hearings. The views of the Applicants and Intervenors are as follows:

### (a) Northland

Northland proposed in their original application to use local gas supply from the Grizzly fields in preference to bringing gas from Westcoast's existing system near Pine River. Their studies indicated that the Grizzly fields would provide an adequate supply of gas until the long range needs of the area could be defined. To enhance security of supply Northland could make two portable propane-air units available if they were required.

Estimates of natural gas remaining in the Nikanassin formation of the Grizzly fields ranged between 120 Bcf and 150 Bcf. At present rates of production (52% MDVO = 12 MMcfd) the estimated reserves would last for about 30 years. Additional wells would be required to maintain gas deliverability at these rates.

Northland were not in favour of dedication of the Nikanassin production from the Grizzly fields to the Tumbler Ridge Area although they suggested that if the fields were to be dedicated then BCPC might permit Quasar to produce some other field which is now shut-in. The problem raised by Northland with regard to dedication was that it could make future drilling in the area uneconomic and they believed that further drilling would be desirable to maintain produceability.

(b) ICG (B.C.)

In order to be able to guarantee security of supply ICG (B.C.) required that production from the Nikanassin formation of the Grizzly fields be dedicated to the Tumbler Ridge Area. They also required a long term (i.e., 15 years) commitment from Quintette plus a payout provision if Quintette did not renew at the end of the term.

ICG (B.C.) would commission additional work subsequent to the granting of a certificate to improve their confidence in the Grizzly fields before proceeding with the project. If shortfalls in supply developed after the project was completed they would satisfy the requirements of the townsites first.

(c) Inland

In Inland's written application they expressed confidence that a satisfactory supply of processed gas is available from the Grizzly fields and that it may be purchased at a reasonable cost. In oral evidence, Inland were uncomfortable with supply from the Grizzly fields but the company had undertaken no independent assessment of deliverability from the fields.

To alleviate their concern with adequacy of supply from the Grizzly fields, Inland proposed a permanent stand-by propane-air system which could keep the town supplied in the event the Grizzly fields fail to produce.

Inland believed that the line joining the North and South Grizzly fields would not necessarily have to be built to satisfy proposed markets. They did not care which field the gas is produced from. Quasar could drill more wells in the North Grizzly field if that were necessary.

(d) Westcoast

Westcoast proposed to supply gas from their mainline near Pine River rather than to rely on the Grizzly fields. This decision was in part due to their perception that the Nikanassin formations of the Grizzly fields have not been able to produce adequately.

During the first year of operation the fields had an arbitrarily selected MDVO which was higher than the fields



could achieve on a sustained basis. In the period of operation since April 1981 there was approximately a 2.5% shortfall in production in comparison with orders. Westcoast's system-wide shortfall of production in comparison with orders is about 9%.

Westcoast estimated that the Grizzly fields would be unable to meet peak day requirements of the townsite and Quintette after about 6 or 7 years of production unless more wells are drilled. This is not dissimilar to circumstances which prevail throughout B.C. and Alberta if additional drilling is not attractive.

Westcoast believed that use of the Grizzly fields would not be technically feasible unless:

- Nikanassin production were dedicated to the Tumbler Ridge Area; and
- there were a subsidy to Quasar for future in-fill drilling.

(e) Quasar

Semi-sweet gas from the Nikanassin formations of the Grizzly fields is currently under contract to BCPC. Quasar would not agree to having the gas dedicated to the Tumbler Ridge Area as this would reduce cash flow from the property to an unacceptable level and make further drilling economically difficult.

The Nikanassin formation is naturally fractured rock of low permeability. Initial production from the reservoir is

high because the fracture system has a high permeability. It is depleted rapidly because of its low porosity and production falls rapidly to a level that is sustained by the matrix from which gas escapes only slowly.

A 14-day open flow test conducted in February 1982 by Westcoast on behalf of BCPC established an MDVO of about 23 MMcfd. Compression equipment was used to lower the well-head pressure to around 300 psi in the test. A similar test, but without compression, conducted in March 1981 resulted in establishment of an MDVO of around 24 MMcfd. Average production from the fields between tests was at approximately 25% of the MDVO. Production from the fields was less than might have been expected because the Grizzly Valley pipeline was out of service for about six months for repair.

Quasar testified that gas prices are adequate to make in-fill drilling profitable but no new wells are planned because they may not be able to sell the gas. Quasar were confident they can plan and complete a new well within an elapsed time of 12 months. The company indicated that in-fill drilling was viable at a take or pay level of 72% of MDVO, but not at 52%.

(f) BCPC

BCPC gave the opinion that a concept might be developed in which security of supply could be improved. Details of the concept were discussed in some detail but BCPC made it clear that there was nothing firm about the plan at this time and that nobody had agreed to it. The general thrust

of the concept was that Quasar might be permitted to produce more gas from the combined Nikanassin and Halfway formations in the Grizzly fields than the combined MDVO would normally permit under the existing contract with BCPC. Production would be limited by a long-term deliverability test when that test indicated that supplies to the Tumbler Ridge Area might be jeopardized.

The attractiveness of the plan centred around the increased production which may be permitted at first which could make drilling new wells a more attractive proposition. The drawback of the plan was the long length of time (15 years) which BCPC expected the fields to supply the Tumbler Ridge Area with an assured source of gas. Insistence on a guaranteed 15 year supply of gas to the Tumbler Ridge Area would put the field on permanent curtailment which would be similar in effect to dedication.

#### IV. GAS PROCESSING AND TRANSMISSION FACILITIES

##### 1. Gas Processing

Gas processing facilities are not required for alternatives in which gas is supplied from the Westcoast system near Pine River. Following are views of the Applicants for alternatives in which gas is supplied from the Grizzly fields.

##### (a) Northland

Northland proposed that an amine gas sweetening plant with a capacity of 8 MMcfd with an iron sponge backup system be used to process semi-sweet gas from the Grizzly fields. The unit would function unattended overnight with callout alarms and an automatic switchover to the backup iron sponge system if the primary amine unit malfunctions. Capital costs were estimated at around \$1,100,000 with operating and maintenance cost of around \$150,000 per year. A further dehydration unit costing \$100,000 is likely to be required.

The amine plant proposed by Northland would reduce both carbon dioxide and hydrogen sulphide to acceptable levels. The removal of carbon dioxide from the gas stream would improve the heat value of the gas and reduce the volume of gas transported in the pipeline by some 5 percent.

(b) ICG (B.C.)

ICG (B.C.) did not claim to be experts in gas processing. They have based their costs on those provided by their consultants and by Quasar. Their proposal was not definite and a final decision as to the type of plant would be made until the gas supply is more firmly tied down.

They have two possibilities -- a twin iron sponge unit which they estimate would cost \$700,000 and an amine unit which would cost between \$900,000 and \$1,700,000. They did not have any firm operating costs for any plant. They have not come to a decision as to who would own and operate the plant.

In their calculations of rates they used an estimate prepared by Quasar of about 50 cents per GJ as the total processing charge which included both owning and operating costs. Quasar's number assumed that twin iron sponge units would be employed. Operating costs were calculated by Quasar in terms of future dollars which overstated the average annual owning and operating costs in 1982 dollars. ICG (B.C.) later filed information which showed that average processing costs would be in the order of 40 cents per GJ when expressed in 1982 dollars.

(c) Inland

Inland proposed to take possession of the gas after processing and have no opinion about how it should be processed.

(d) Westcoast

Westcoast believed that a gas processing plant would need to be fully spared in order to achieve reliability of supply. They favoured an amine-type sweetening plant in order to reduce carbon dioxide as well as hydrogen sulphide to pipeline specifications. Westcoast believed that it would be acceptable to back up an amine unit with an iron sponge but it would produce gas which would not meet their pipeline specifications with respect to carbon dioxide during those times that the amine unit was out of service. The primary effect of carbon dioxide in the gas stream is to reduce the heat value of the gas but the carbon dioxide would not pose any hazard.

2. Transmission Facilities

(a) Northland

Northland's general design philosophy was to satisfy the immediate demands of the area as economically as possible until the long range needs could be properly defined. Northland's favoured alternative did not call for Northland to build their own transmission facilities. For their second alternative they proposed a 4-inch pipeline from the Grizzly fields to a point between Quintette and the townsite of Tumbler Ridge with 3- and 2-inch pipelines feeding Tumbler Ridge and Quintette respectively.

Estimated capital costs of \$3,348,000 for Northland's proposed transmission pipeline and laterals would be the lowest of the Applicants. This is attributable in part to the fact that Northland's proposal called for smaller diameter pipe than the other proposals and lower estimates of construction costs.

The transmission line from the Grizzly fields has some spare capacity over the projected requirements of Quintette space heating and Tumbler Ridge. Spare capacity could be used to provide space heating at Teck or allow for future increases in the size of Tumbler Ridge townsite.

Northland testified that a larger 6-inch pipeline would cost more than a 4-inch line primarily due to the cost of materials and that ditch work and installation would not be significantly increased. Total cost to build a 6-inch line from Grizzly fields to the Quintette junction and a 4-inch line from the junction to the townsite as well as a 2-inch line to Quintette was estimated to be \$4,331,000 which is almost \$1,000,000 more than their proposed alternative.

(b) ICG (B.C.)

ICG (B.C.) proposed as their favoured alternative to build a 4-inch pipeline from the Grizzly fields to Tumbler Ridge with a 2-inch lateral to Quintette. Total cost of the mainline and lateral was estimated to be \$4,989,000.

If the 4-inch mainline were replaced by a 6-inch mainline they estimated that costs would increase by about \$4 per foot. Detailed cost estimates prepared by ICG (B.C.) showed that if the mainline were to be increased in size to a 6-inch line, total cost (direct and indirect) of mainline and lateral would rise by about \$908,000 to about \$5,900,000.

Their second alternative proposed a pipeline from the Westcoast system near Pine River. It was estimated to cost around \$25,570,000. Because this would be uneconomic on a stand-alone basis, ICG (B.C.) would require a new arrangement with BCPC to roll-in the costs of transmission to the Provincial cost of service if they built the line.

Their third alternative called for a permanent propane system at the townsite and therefore no transmission facilities were required.

(c) Inland

Inland's first alternative was to build a 6-inch transmission line from the Grizzly fields to Tumbler Ridge with a 4-inch lateral to Quintette for a total estimated cost of \$5,185,000. A 6-inch line would provide excess capacity above that required for the townsite and space heating at Quintette and would be adequate to supply Quintette and Teck if they elected to use gas for coal drying. If a 4-inch mainline were built instead of a 6-inch line they estimated that \$382,000 could be saved and



the total cost for transmission facilities would reduce to \$4,803,000.

Inland believed there would be insufficient lead time for adequate planning and permitting to complete the transmission line by October 1. They also believed that parts of the planned right-of-way may be better suited for winter construction and in order to obtain a minimum cost they would like the opportunity to construct the line in the winter of 1982/83 if that looked like it would cost less than constructing it in the summer of 1982. They therefore proposed to build a propane vapor system for the first winter of operation.

Inland's second alternative called for a pipeline from Pine River but they claimed that this alternative is not economic.

(d) Westcoast

Westcoast proposed to build a transmission line from their main trunk line near Pine River to Tumbler Ridge townsite, a distance of some 71 miles. Their decision not to use the Grizzly fields was based on the company's perception of long-term economics. They expected Teck to be operating by the end of 1983 and that Petro-Canada would begin in 1985 and be at full capacity by 1987. They projected that Teck will require gas to dry coal.

Westcoast's total cost of the transmission line and laterals (including a lateral to Teck) were estimated to be \$28,398,600 of which \$4,891,000 had already been constructed. The proposed construction included 8-inch and 6-inch transmission lines with 3-inch laterals to Teck and Quintette and a 4-inch lateral to Tumbler Ridge. The pre-built sections of their proposed line are 20-inch and 24-inch sections which are currently part of the Grizzly Valley sour gas pipeline. These large diameter sections of pipe are to be removed from service in the sour gas pipeline due to corrosion problems. Westcoast believed that the pipe would remain suitable for transmission of marketable gas.

## V. DISTRIBUTION FACILITIES

The design of the distribution system was hampered by the lack of definitive information and plans for the initial and future development of the proposed townsite.

The District of Tumbler Ridge provided the Commission information regarding the number and size of the proposed residential and commercial development by letter of February 2, 1982. This information was distributed to the three Applicants.

The evidence indicates that the Applicants have made individual assessments of the potential market and the layout of the proposed townsite.

### (a) Northland

Northland proposed a distribution system to serve the entire market in Tumbler Ridge. A detailed layout of the distribution system was not provided by Northland. An allowance of \$45,000 per year was provided beyond 1986 for expected expansion of 2% per year.

The proposed distribution system would be composed of a combination of steel and plastic (polyethylene) pipe. Plastic Pipe would be used for sizes 114.3 mm (4-1/2-inch) and under. Steel pipe of 168.3 mm (6-5/8-inch) and 219.1 mm (8-5/8-inch) diameter were proposed.

The Applicant proposed to provide front servicing utilizing dual mains as required by the planners to eliminate the need for service line crossings of the streets. Plastic service lines of 1/2-inch, 3/4-inch, 1-1/4-inch, and 2-inch were to be installed.

Northland proposed operating conditions and pressures in accordance with current applicable codes for the materials and construction to be utilized.

The capital cost estimates for the distribution system ranged from \$909,000 initially to \$1,408,000 in the last year of development. The unit costs were confirmed by the company's experience and that of its affiliates in areas of comparable conditions.

The service line policy of the company provided for the installation of the line from the main to the property line at the cost of the company. The cost of the line on the customer's property would be paid by the customer. It was estimated to be \$250.

Northland proposed to operate the Tumbler Ridge system with resident personnel located at Tumbler Ridge and provided for general plant including residence, office and equipment. Additional staff from Dawson Creek would support the operation. Northland provided information in support of their extensive experience with plastic pipe distribution systems.

An outline of the company's policy regarding free burner tip service for gas customers was included in support of their application.

(b) ICG (B.C.)

ICG (B.C.) designed a distribution system to provide service to the townsite of Tumbler Ridge as laid out in drawings provided by the District of Tumbler Ridge and their consultants. It was acknowledged by ICG (B.C.) that revisions to the design would occur before construction but that the amount of pipe provided for would be adequate to provide total service with the dual mains specified by the District.

The general design submitted by ICG (B.C.) was based on a medium pressure system with 168.3 mm (6.625-inch), 114.3 mm (4.5-inch) and 88.9 mm (3-1/2-inch) backbone and 60.3 mm (2.375-inch) and 42.2 mm (1-1/4-inch) distribution laterals.

ICG (B.C.) proposed to utilize polyethylene plastic for all mains except 168.3 mm. The company indicated that they have considerable experience in plastic installations from their activities in Alberta and other parts of the country.

While other Applicants proposed to install 1/2-inch service lines ICG (B.C.) insisted that more safety and security would be achieved by using 3/4-inch service lines with very little additional cost. The proposal provided for the full cost of service lines to the customer's premises.

The capital estimates provided by ICG (B.C.) for the distribution system construction were the highest of the three distributors but were later reduced due to changes in the contractor's estimates reflecting shallower ditching.

ICG (B.C.) proposed to operate with two levels of offices. A Head Office located in Nanaimo would provide administrative, accounting, marketing and engineering functions. A District Office in Tumbler Ridge would be staffed by a district supervisor, a serviceman, and district clerk to coordinate the construction program and provide customer liaison and service.

(c) Inland

Inland proposed to complete the initial phase of the Tumbler Ridge distribution system during the summer of 1982. The energy requirements of the townsite would be supplied during the initial heating season by means of propane vapor from a plant to be constructed in the summer of 1982. An amendment to Inland's proposal was tabled during the hearing calling for the conversion of the propane vapor plant to a propane-air stand-by plant after the natural gas pipeline and purification facilities had been installed.

Inland indicated they would transfer the propane-air stand-by plant which was in use in Grande Prairie, Alberta to Tumbler Ridge for this purpose. The asset would be transferred at its depreciated book value and would provide a relatively cheap form of stand-by facility.

Inland's first proposal submitted in December of 1981 was based on market information then available and utilized steel pipe for the entire system. The second submission made in February of 1982 consisted of a somewhat reduced

distribution system due to more recent market information and involved the use of steel pipe for 4-inch and 6-inch diameter pipe and plastic for the majority of the system involving 1-1/4-inch and 2-inch pipe.

Inland gave evidence as to the extent and design of their proposed system. The initial subdivision plan was provided by the consultants to the District of Tumbler Ridge and the system was designed in detail providing for dual mains in all areas so that road crossings would not be required. The footages and costs obtained from the initial system were applied to the customers requiring service in future years and estimates for 1983 through 1986 were developed. This was said to be necessary due to the lack of an overall subdivision design for the complete development. This method resulted in lesser footages than estimated by the other Applicants.

Inland proposed to use 1/2-inch plastic service lines for residential users and a mix of larger lines with an average cost equivalent to 105' of 3/4" for commercial service lines.

Inland admitted to very little experience in the use of plastic for mains and services, having installed only some 10,000 feet of 1-1/4-inch and 2-inch mains in the Kamloops area in 1981. Inland prepared specifications based on CSA codes and industry practice and indicated that competent installers are available.

Inland's proposed service line policy was consistent with their practice elsewhere in the province with the company bearing the entire cost from main to meter.

Inland proposed to operate Tumbler Ridge as a satellite of their branch office in Chetwynd some 45 miles away. One employee, a qualified gas fitter, would be permanently located in the town and would be supported by the Branch staff in Chetwynd. No provision for general plant such as vehicles, tools and equipment was given.



## VI. FINANCIAL CONSIDERATIONS AND RATES

The financing and rate implications of the Applicants' proposals are discussed in this section under the headings of Rate Base, Financing, Cost of Service and Rates.

### 1. Rate Base

#### (a) Northland

Northland submitted two alternatives for the Commission's consideration. Their preferred case called for a distribution system within the townsite only. The second alternative included a gas processing plant, transmission lines from the plant to the town and Quintette.

Northland's estimated rate base for the second alternative was in the order of \$6.5 million in 1982 dollars for the year 1986. Northland's cost did not include a dehydration unit costing perhaps \$100,000. Northland explained that they could use the unit in Quasar's plant at a lower cost. Northland included a lateral to Quintette's Babcock mine.

In its town distribution system the Applicant would construct service pipe to the customer's property line. An estimated additional \$250 would be required to extend the service line to the customer's building structure. This would add \$0.5 million to the rate base if Northland were required to pay for the service.

(b) ICG (B.C.)

ICG (B.C.) presented three cases to the Commission for consideration:

- (i) Natural gas service to Tumbler Ridge and Quintette with Grizzly gas supply.
- (ii) Natural gas service to Tumbler Ridge and Quintette using gas supply from Pine River.
- (iii) Propane vapour service to Tumbler Ridge only.

The rate base for service from the Grizzly fields did not include a processing plant. ICG (B.C.) developed costs on the assumption that Quasar would build and operate the plant and charge ICG (B.C.) a processing fee of \$.409/GJ . ICG (B.C.) supplied an extensively laid out distribution plan and high unit cost of construction. This company had the largest rate base, \$7.85 million in 1986, relative to the other two Applicants.

(c) Inland

Inland submitted two supply alternatives:

- (i) Inland transmission line from Quasar processing plant to serve Tumbler Ridge and Quintette.
- (ii) Inland transmission line from Westcoast Pine River plant to serve Tumbler Ridge and Quintette.

In both cases, Inland proposed a propane vapour system to be installed in 1982 and full natural gas service in 1983. In addition case (i) included a standby propane air plant costing \$150,000. Inland depended on a third party to build and operate a processing plant for natural gas supply from the Grizzly fields. Inland would construct a larger size (6-inch vs 4-inch) transmission line to the townsite. Unit costs were unusually low and result in a low rate base (\$6.5 million in 1986). Inland did not provide any general plant facilities. Case (ii) was considered uneconomical by Inland due to high capital cost and small market.

## 2. Financing

### (a) Northland

Capitalization of the financing was proposed at 60:40 debt equity ratio, which is consistent with the Commission's latest decision on the company's rate case. Cost of debt at 17% reflected the latest issue of their parent company; an interest coverage of 2.6 would be achieved. The company would also accept a lower rate of return on common equity at 17.25% compared to the 17.5% required by the other two Applicants.

(b) ICG (B.C.)

In their application, ICG (B.C.) did not provide a stable debt equity ratio for project financing. A 50:50 ratio was presented in the hearing to show the effect on proposed customer rates. During the hearing, ICG (B.C.) claimed that they were in the process of consolidating all B.C. operations. The Applicant did not indicate whether the debt would be advanced from its parent or as a direct placement. Although interest cost was set at 18.18%, without some guarantee from their parent company it would be difficult for ICG (B.C.) in their stand alone capacity to raise the funds, despite interest coverage imputed at approximately 2.35.

(c) Inland

The Applicant in financing the project used a debt equity ratio of 70:30. Inland adopted the prime bank lending rate of 17.25% as the cost of debt, which appears to be low if the company's current high leverage and recent issue at 18.25% are considered. As interest coverage was below 2 times, there may be concern about the company's financial integrity if more borrowing were planned without corresponding increase in equity support. The Applicant required a rate of return on common equity of 17.5% which was one percent higher than approved by the Commission in the decision of March 1981.

### 3. Cost of Service

#### (a) Northland

Northland proposed to operate the processing plant with two extra employees for annual cost of \$150,000. Total cost of gas would be approximately \$2.244/GJ. The local office would be staffed by 2-1/2 employees. In their estimate, Northland did not provide franchise fees, yet its Dawson Creek operation incurred \$23,000 in such fees for the past year. Similarly, Northland's forecast in municipal and property taxes appears to be low in comparison to the other two Applicants. Northland would enjoy the lowest cost of debt compared to the other two Applicants as a result of direct advances from their parent company, Canadian Utilities, which have a triple A bond rating.

#### (b) ICG (B.C.)

Including the processing cost \$.409/GJ for natural gas by Quasar, the average cost of gas to ICG (B.C.) would be \$2.178/GJ in 1982 dollars. Their branch office would be staffed by 2-1/2 employees. As a result of their normal practice of flow through tax accounting, customers would enjoy lower rates in earlier years but higher rates in later years of service. Meanwhile, ICG (B.C.) expected a cost of debt at 18.18%.

(c) Inland

The cost of gas including Quasar processing would be roughly \$2.229/GJ. Due to the company's proposed propane vapour system in the first year, they would suffer large deficits, and proposed a "revenue deficiency capitalized" account to stabilize the rates. The Applicant forecast the lowest operating and maintenance costs with the assumption that extra help can be available from their Chetwynd office. Inland believed only one employee would be required at Tumbler Ridge and no local office was planned. Since a thin debt equity ratio of 70:30 was proposed to finance the project, the company, estimated higher debt cost, lower income tax provision and lower return to common equity than the other two Applicants.

4. Rates

(a) Northland

With their own facilities, Northland proposed a tariff of \$2.75 per month plus \$5.41 per GJ (Exhibit 28) taking into account the revised Quintette heating load. As an alternative, Northland demonstrated that if the transmission and processing facilities were rolled-in to Westcoast's provincial cost of service, the rates could be as low as \$4.35/GJ in their preferred case. The effect as testified by Westcoast would be less than 1¢/GJ to all Westcoast wholesale customers.

(b) ICG (B.C.)

ICG (B.C.) proposed a tariff of \$3 per month plus approximately \$5.5 per GJ, which over the ten year projection would recover the revenue requirements.

(c) Inland

Inland proposed to adopt their existing postage stamp rates for residential and commercial customers while Quintette would be charged an opportunity rate of \$6.16/GJ to reflect the price of propane at \$6.50/MMBTU. Under this scheme, a revenue deficiency of approximately \$7 million at the end of ten years would have to be subsidized by Inland's system-wide customers. This deficiency would grow to \$8.6 million at the end of 15 years. An average rate of \$6.02 per GJ would be required to fully recover the revenue requirement over ten years provided no adjustment was made to their rate base and cost of service.

During examination Inland provided quotes of propane prices as low as \$5.03/MMBTU. It would be unlikely to expect Quintette to pay in excess of this price for natural gas. Therefore under the Inland proposal the revenue deficiency would be significantly higher.

## VII. FINDINGS OF THE COMMISSION

The Commission has carefully considered all of the matters concerning natural gas supply, markets and eventual consumer rates for District of Tumbler Ridge and surrounding area in arriving at its decisions. Bearing in mind the evidence by Quintette Coal Limited and Teck Corporation that coal drying will be done by coal fired dryers, the Commission finds that any proposal to deliver natural gas from the Pine River processing plant to service the reduced heating load market is grossly uneconomic and unjustified at this time.

The availability of relatively "sweet" natural gas from pools to the south of the Tumbler Ridge townsite was a concern at the hearing. The evidence was that the proven reserve of "sweet" natural gas from the Nikanassin formation of the North and South Grizzly fields was large in relation to the needs of the Tumbler Ridge Area. However, due to the nature of the tight sand reservoirs the long term deliverability of the existing wells was questioned. The Commission notes that even assuming that the initial declines in deliverability continue the assurance of supply on a deliverability basis is similar in the case of Tumbler Ridge to that which existed generally for the Province of British Columbia at the time of the 1980/81 public review of natural gas field and wholesale prices. The Commission finds that while the long term deliverability of natural gas from the Grizzly fields requires ongoing development activity, this situation is little different from that which exists in British Columbia generally.



It was pointed out by some parties that dedication of the existing wells would provide complete assurance of the gas supply. However such an action would jeopardize the rights of the field operator, Quasar, and would discourage drilling of infill wells to maintain and diversify gas deliverability. The Commission is confident however that the BCPC will pursue whatever options are necessary to maintain deliverability of gas to this community in the same way that the Corporation pursues the contracting of gas to meet the requirements of all B.C. consumers and Westcoast's export customer.

The Commission has concluded that the proposal by Northland Utilities (B.C.) Limited to provide natural gas processing, transmission, and distribution services to the District of Tumbler Ridge and surrounding area provides the most secure method of delivery of marketable natural gas from the local fields and is in the public interest. The Commission believes it is important that the processing of the raw gas be undertaken by the same entity which has responsibility for transmitting the gas to market. In this way the utility will maintain control of the reliability of the processing plant and will be responsible for that reliability. Such ownership should also lead to effective cost control. It is believed that the primary amine processing unit with iron sponge backup provides adequate reliability with capability of removing both the sulphur and carbon dioxide.

In determining that Northland should provide the natural gas service in the area the Commission has borne in mind the closing arguments of the District of Tumbler Ridge that the rates to the inhabitants of Tumbler Ridge could be minimized by

"rolling in" the costs of service to this community to the cost of service of Inland's customers, or, that of all B.C. consumers via the Westcoast rate base. The Commission is aware, however, that under the current tariff structure of Inland the Tumbler Ridge extension does not meet the company's main extension policy.

The Commission does not believe that a direct subsidy should be provided for either the transmission or distribution portions of the project. The current pricing mechanisms in British Columbia are such that each utility and its customers pay the full costs of the transmission and distribution facilities allocated to the utility. However it is also the case that the costs of gathering and processing gas by Westcoast have been averaged over all the gas produced. As a result of the Government's decision in January, 1982 the British Columbia price charged for off-line gas sales is currently \$1.48/Mcf.

The Commission believes that Northland and the District of Tumbler Ridge should be granted the same benefit as other utilities in the Province. It is therefore proposed that the sale of gas to Northland be treated as an offline sale and priced at \$1.48/Mcf, after gathering and processing. Northland is to be reimbursed for the cost of processing as is the current procedure in British Columbia.

The overall effect of the foregoing will be to reduce the rates charged by Northland. For illustrative purposes the rate of \$5.41/GJ shown in Exhibit 28 would be reduced to approximately \$4.96. These rates would provide a significant margin below the prices of competing fuels, including the rolled-in price of

electricity. It will however be most beneficial to the people of Tumbler Ridge if market saturation is achieved, thereby minimizing the consumer prices. The Commission therefore urges the District of Tumbler Ridge to assist the utility to insure that maximum market penetration is achieved.

The Commission is concerned that heat must be available in the town by October 1, 1982. Northland expressed confidence that construction would be complete by that date and, in the event of a delay, propane-air could be made available at minimal cost from the parent company. The Commission urges Northland to complete construction expeditiously with a view to start-up by October, but at the same time contingencies should be carefully planned to insure heat availability in the event of construction delays.

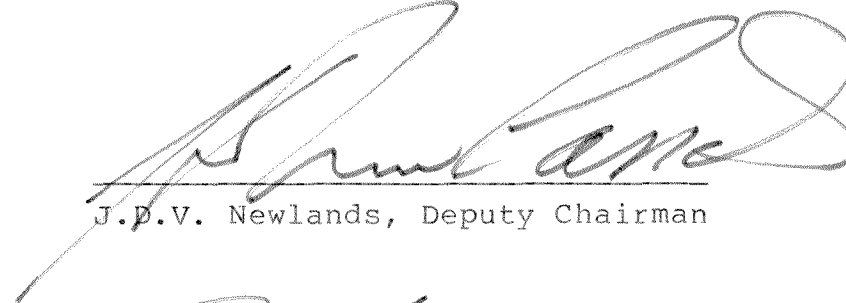
It was stated during the hearing that Northland require a contribution in aid of construction for service lines and meters on the customer's property. The Commission believes that Northland should follow the same policies as exist in Dawson Creek.


The Commission recognizes that Northland are prepared to offer a tariff for Tumbler Ridge which allows for recovery of costs plus rate of return over ten years. The effect of the rate structure is to reduce the utility return in the early years with catch-up in the later years. The Commission believes that such an averaging of the rate is in the public interest for a new project like Tumbler Ridge.

A final matter is the apportioning of Commission costs for the hearing. The Commission believes that each of the four parties which sought an Order of the Commission in their favour should share the costs of the hearing equally. Twenty-five percent of the related costs will be billed to each of Northland Utilities (B.C.) Limited, Inland Natural Gas Co. Ltd., ICG Utilities (British Columbia) Ltd., and Westcoast Transmission Company Limited. With the exception of Northland Utilities (B.C.) Limited, who shall be entitled to recover these costs and related internal costs from its customers, the appropriate disposition of the cost will be considered at the next rate proceeding of each jurisdictional utility.

DATED at the City of Vancouver, in the Province of British  
Columbia, this 5<sup>th</sup> day of April, 1982.

  
\_\_\_\_\_  
M. Taylor, Chairman

  
\_\_\_\_\_  
J.D.V. Newlands, Deputy Chairman

  
\_\_\_\_\_  
B.M. Sullivan, Commissioner.



BRITISH COLUMBIA UTILITIES COMMISSION	
ORDER	
NUMBER	G-3-82

PROVINCE OF BRITISH COLUMBIABRITISH COLUMBIA UTILITIES COMMISSION

IN THE MATTER OF the Utilities Commission  
Act, S.B.C. 1980, c. 60

and

IN THE MATTER OF the provision of Gas  
Service to the District of Tumbler Ridge  
and surrounding area

BEFORE: M. Taylor, )  
Chairman; and ) January 5, 1982  
B.M. Sullivan, )  
Commissioner )

O R D E R

WHEREAS the Commission published a Notice  
"Provision of Gas Service" as per the attached "Schedule A";  
and

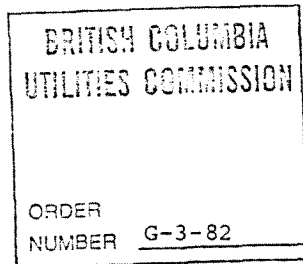
WHEREAS in response to the said Notice the  
Commission has received three Applications pertaining to  
Distribution and Transmission facilities, as follows:

- ICG Utilities (British Columbia) Ltd.
- Inland Natural Gas Co. Ltd.
- Northland Utilities (B.C.) Limited.

NOW THEREFORE the Commission after reviewing  
the said Applications hereby orders as follows:

1. A public hearing into the matter of the said Applications for the granting of a Certificate of Public Convenience and Necessity, pertaining to Distribution and Transmission facilities, or combination thereof, for natural gas service to the District of Tumbler Ridge and surrounding area will commence at 10:00 a.m., local time, on Tuesday, February 16, 1982 at the George Dawson Inn, 11705 Eighth Street, Dawson Creek, B.C., V1G 4N9.
2. A preliminary matter to be heard at the aforementioned public hearing will be the consideration of admissibility of the Application by ICG Utilities (British Columbia) Ltd. since it was incomplete as at December 21, 1981.

.../2



3. A copy of the attached Notice of Public Hearing will appear in one issue only of the publications referred to in "Schedule A" attached not later than Saturday, January 23, 1982.

DATED at the City of Vancouver, in the Province  
of British Columbia, this 8<sup>th</sup> day of January, 1982.

BY ORDER

*M. Taylor*  
Chairman

Attch.



NOTICE OF PUBLIC HEARING

PROVISION OF NATURAL GAS SERVICE TO THE  
DISTRICT OF TUMBLER RIDGE AND SURROUNDING AREA

THE APPLICATIONS

Advice has been received by the Commission related to Applications pertaining to Distribution and Transmission facilities as follows:

- ICG Utilities (British Columbia) Ltd.
- Inland Natural Gas Co. Ltd.
- Northland Utilities (B.C.) Limited.

In addition to the foregoing, a submission concerning Transmission facilities only has been received by the Commission from Westcoast Transmission Company Limited.

THE PUBLIC HEARING

The Commission has set down the Applications for public hearing commencing at 10:00 a.m., local time, Tuesday, February 16, 1982 at the George Dawson Inn, 11705 Eighth Street, Dawson Creek, B.C., V1G 4N9.

PUBLIC INSPECTION OF THE APPLICATIONS

The Applications and supporting material are available for inspection at the Commission offices, 21st Floor, 1177 West Hastings Street, Vancouver, B.C., V6E 2L7, or from the parties noted above under "Applications".

INTERVENTIONS

Any person intending to give evidence or cross-examine witnesses at the hearing should give written notice by Monday, February 1, 1982 to the Commission Secretary and to each of the Applicants.

SUBMISSIONS BY INTERESTED PERSONS

Any person intending to file a written submission must file one copy of the submission with the Commission Secretary, and with each of the Applicants not later than Monday, February 1, 1982.

CLARIFICATION

Persons intending to participate in the hearing who are uncertain as to the manner in which to proceed should contact the Commission Secretary in writing, or by telephone [604] 689-1831.

BY ORDER

A.C. Michelson  
Secretary



# SIMONS ADVERTISING LIMITED

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November 02, 1981

B.C. Utilities Commission  
21st Floor  
1177 W. Hastings Street  
Vancouver, B.C.  
V6E 2J7  
Attention: M. Michaelson

Dear Mr. Michaelson:

Enclosed is a copy of the Tumbler Ridge Notice, for your approval.

This notice will be appearing in:

Vancouver Sun	November 05, 1981
Vancouver Province	November 04, 1981
Dawson Creek Peace River Block News	November 06, 1981
Ft. St. John Alaska Highway News	November 06, 1981
Ft. St. John Town & Country	November 11, 1981
Dawson Creek Mirror	November 10, 1981
Dawson Creek Town & Country	November 10, 1981

Regards,

SIMONS ADVERTISING LIMITED

*Trish Lee.*

Trish Lee

:tl

*2 Nov 81*

*Received 3:25 P.M.*

*Checked*

*DBK, DDUN & CHS*

*Approval telephoned*

*to Trish Lee*

*3:29 P.M.*



## NOTICE

### PROVISION OF GAS SERVICE

Persons interested in providing facilities for either Transmission, Distribution or combination thereof for natural gas service to the new District of Tumbler Ridge and surrounding area, located in the northeastern coal region of British Columbia, are invited to submit Applications not later than December 21, 1981.

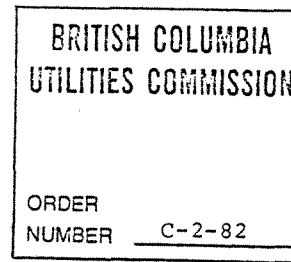
A public hearing to consider such applications is scheduled to commence February 16, 1982.

All applications should be submitted to:

The Secretary  
B.C. Utilities Commission  
21st Floor, 1177 West Hastings Street  
Vancouver, B.C.  
V6E 2L7

Ad. #BCU-004-110  
3 Col. x 73 Lines—Nsp.  
Prepared Oct. 31, 1981

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	131 West Second Avenue, Vancouver, British Columbia V5Y 1B8		Evenings: 682-4527	
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PROVINCE OF BRITISH COLUMBIA

BRITISH COLUMBIA UTILITIES COMMISSION

IN THE MATTER OF the Utilities Commission  
Act, S.B.C. 1980, c. 60

and

IN THE MATTER OF Applications for a  
Certificate of Public Convenience and  
Necessity, pursuant to Section 51 of the  
Act, for the provision of natural gas  
service to the District of Tumbler Ridge  
and surrounding area.

BEFORE: M. Taylor, )  
Chairman; )  
J.D.V. Newlands, ) April 1, 1982  
Deputy Chairman; and )  
B.M. Sullivan, )  
Commissioner )

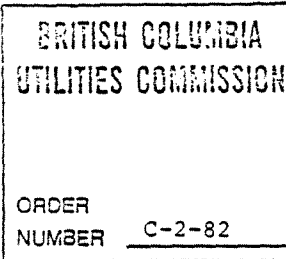
CERTIFICATE OF  
PUBLIC CONVENIENCE AND NECESSITY

WHEREAS in November, 1981 the Commission  
published a newspaper advertisement inviting interested  
persons to submit Applications not later than December 21,  
1981 for the provision of Transmission and Distribution  
facilities to provide natural gas service to the District  
of Tumbler Ridge and surrounding area; and

WHEREAS the following submitted Application  
documents in response to the above:

ICG Utilities (British Columbia) Ltd.  
Inland Natural Gas Co. Ltd.  
Northland Utilities (B.C.) Limited; and

WHEREAS Westcoast Transmission Company Limited  
provided a submission concerning Transmission facilities  
only; and



WHEREAS Commission Order No. G-3-82 established Tuesday, February 16, 1982 for commencement of the public hearing; and

WHEREAS the public hearing was rescheduled to commence March 9, 1982 at Dawson Creek, B.C.; and

WHEREAS the public hearing continued at Dawson Creek from Tuesday, March 9, 1982 through Saturday, March 13, 1982; adjourned to Vancouver, continuing in evening sessions on March 15, 16, 17, 18, 22, 23, and 25, 1982; and

WHEREAS the Commission has considered the Applications and supporting documents together with the evidence adduced at the hearings, and finds that the proposed project is in the public interest; and

WHEREAS the matter of timing, and the heating load contemplated in the Tumbler Ridge project may be affected by a variety of outside factors beyond the control of the Applicant; and

WHEREAS the Commission is prepared to consider modifications and their impact with regard to the public interest.

NOW THEREFORE the Commission hereby orders as follows:

1. Northland Utilities (B.C.) Limited ("Northland") is granted a Certificate of Public Convenience and Necessity under Section 51 of the Utilities Commission Act for the provision of natural gas service to the District of Tumbler Ridge and surrounding area.

BT	ASIA
UTL	SSION
OF	C-2-82
NU:	

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2. Northland is to proceed expeditiously with the construction of its proposed Processing, Transmission and Distribution facilities to the end that the provision of natural gas service be available for the requirements of the District of Tumbler Ridge.
3. Northland is required to file monthly progress reports until the commencement of gas service at Tumbler Ridge.

DATED at the City of Vancouver, in the Province  
of British Columbia, this 1st day of April, 1982.

BY ORDER

*M. Layton*  
Chairman

A final matter is the apportioning of Commission costs for the hearing. The Commission believes that each of the four parties which sought an Order of the Commission in their favour should share the costs of the hearing equally. Twenty-five percent of the related costs will be billed to each of Northland Utilities (B.C.) Limited, Inland Natural Gas Co. Ltd., ICG Utilities (British Columbia) Ltd., and Westcoast Transmission Company Limited. With the exception of Northland Utilities (B.C.) Limited, who shall be entitled to recover these costs and related internal costs from its customers, the appropriate disposition of the cost will be considered at the next rate proceeding of each jurisdictional utility.