

ALBERTA ENERGY AND UTILITIES BOARD

Calgary Alberta

**BONAVISTA PETROLEUM LTD.
PACIFIC CASSIAR LIMITED
COMPULSORY POOLING AND PIPELINES
BLOOD AND MAGRATH AREAS**

**Examiner Report 99-1
Applications No. 1020308,
1022809, 1022978, and 1023336**

1 INTRODUCTION

1.1 Applications, Interventions, and Hearing

Pinnacle Resources Ltd. (Pinnacle) submitted

- Application No. 1020308, pursuant to section 72 of the Oil and Gas Conservation Act, for an order prescribing that all tracts within the drilling spacing unit comprising Section 20 of Township 6, Range 21, West of the 4th Meridian (Section 20) be operated as a unit for the production of gas from the Bow Island Formation identified between the electric log depths of 1014.5 to 1020.5 metres (m) in the well with the unique identifier of 00/05-20-006-21W4 (the 5-20 well),
- Application No. 1022809, pursuant to Part 4 of the Pipeline Act, requesting approval to construct 3.68 kilometres (km) of sweet natural gas pipeline from the 5-20 well to Legal Subdivision (Lsd) 9 of Section 23, Township 6, Range 22, West of the 4th Meridian (Lsd 9-23-6-22 W4M),
- Application No. 1022978, pursuant to Part 4 of the Pipeline Act, requesting approval to construct 6.68 km of sweet natural gas pipeline from Lsd 1-27-6-21 W4M to Lsd 5-20-6-21 W4M. The pipeline would allow the transportation of gas from wells located in Lsd 8-21, 5-23, and 1-27-6-21 W4M (the 8-21, 5-23, and 1-27 wells, respectively).

Pacific Cassiar Limited (Pacific Cassiar) submitted

- Application No. 1023336, pursuant to Part 4 of the Pipeline Act, requesting approval to construct 0.81 km of sweet natural gas pipeline from a well located in Lsd 8-19-6-21 W4M (the 8-19 well) to Lsd 1-19-6-21 W4M.

The locations of the proposed pipelines are shown on the attached figure.

Pinnacle opposed Pacific Cassiar's application for a pipeline approval. Pacific Cassiar opposed all three of Pinnacle's applications. Wilde Brothers Farms Ltd. (Wilde Brothers) opposed the two Pinnacle pipeline applications. PanCanadian Petroleum Limited (PCP) and Knight Development Company Limited (Knight), which are freehold mineral owners in Section 20, supported Application No. 1020308 for a pooling order, but did not appear at the hearing of the applications.

The applications were considered at a public hearing on 7, 8, and 9 December 1998, in Calgary, Alberta, by Board-appointed examiners K. G. Sharp, P.Eng., E. A. Shirley, P.Geol., and R. J. Willard, P.Eng.

The participants who appeared at the hearing and abbreviations used in the report are shown on the following table.

THOSE WHO APPEARED AT THE HEARING

Principals and Representatives (Abbreviations Used in Report)	Witnesses
Bonavista Petroleum Ltd. (Bonavista) B. K. O'Ferrall	D. Berguson, P.Eng. of Dale Berguson Engineering Ltd. Wm. Campbell D. Fry C. Rutherford, P.Land H. Spence J. Thiessen, P.Geol. A. G. Verge, P.Eng., M.Eng.
Pacific Cassiar Ltd. (Pacific Cassiar) S. Carscallen	A. D. Coulombe, B.Sc.Geol., P.Eng. of Calco Geological & Engineering Consultants Ltd. D. J. Cartwright, P.Eng. of Martin & Brusset Associates S. Vavra, P.Eng.
Wilde Brothers Farms Ltd. (Wilde Brothers) B. D. Bullock	P. Hinman
Alberta Energy and Utilities Board staff A. Beken, P.Eng., P.Geol. T. Donnelly, Board Counsel K. Fisher P. Forbes, C.E.T. A. Girgis, P.Eng. R. Schafer	

1.2 Preliminary Matters

During the processing of the subject applications, Pinnacle and Renaissance Energy Ltd. (Renaissance) amalgamated under the name of Renaissance. Renaissance subsequently took responsibility for matters involving the applications initially filed by Pinnacle. Without prior notification to any of the parties involved in this hearing or to the Board, Bonavista appeared at the commencement of the hearing to speak to the applications previously submitted by Pinnacle and continued by Renaissance.

Pacific Cassiar objected to Bonavista appearing at the hearing as a stranger to the proceedings. It argued Bonavista had no standing in these proceedings, because there was no evidence on the record that Pinnacle had transferred any application to any party, or that there was any connection between Renaissance and Bonavista. Furthermore, there was no evidence that Bonavista had any interests in the lands involved in the application. Pacific Cassiar noted that Bonavista had not filed any submissions respecting any application, or contacted any of the parties involved prior to the hearing. It raised the concern that Bonavista would not be able to speak to matters on the record in which it had no involvement. Pacific Cassiar was also concerned that Bonavista would introduce new evidence on geological and drainage matters, which Pacific Cassiar had not had an adequate opportunity to review.

Pacific Cassiar concluded that the applications by Pinnacle should be denied, as this party failed to appear at the hearing, or at least the hearing should be postponed while Bonavista properly established itself as the applicant of the submissions filed by Pinnacle. Pacific Cassiar also argued that, as Pinnacle had not appeared at the hearing to speak to its objection to Pacific Cassiar's pipeline application, and no party had filed any objection to this application in response to the notice of hearing, the panel should approve the Pacific Cassiar pipeline application.

Bonavista advised that it adopted the applications and other submissions filed by Pinnacle, including the objection that had been filed to the Pacific Cassiar pipeline application. It indicated that it had purchased all of the assets of Renaissance in the area of application. As evidence that it had standing as the applicant of the submissions filed by Pinnacle, Bonavista filed documents showing transfer of a number of petroleum and natural gas leases involved in the application from Renaissance to Bonavista, and an application transferring well licences from Renaissance to Bonavista. It said that it was prepared to file a Certificate of Amalgamation showing the Pinnacle/Renaissance amalgamation.

Bonavista indicated that it was prepared to take the risk that the disposition of its applications could be affected because it may not be able to speak to everything on the record. It argued that questions regarding new submissions were evidentiary issues rather than those relating to its standing as an applicant, and it would take the risk that additional information it proposed to file would be inadmissible. Bonavista also cited a need for a timely continuation of the hearing process because pipeline surface easements, if not used, would expire in January 1999.

The examiners were disappointed that Bonavista chose not to contact the Board and the parties involved in this matter before the hearing. However, given that Bonavista has adopted the applications and other submissions filed by Pinnacle, and in view of the documentation filed showing Bonavista as the owner of the wells and assets previously held by Pinnacle that are the subject of this application, the examiners believed that Bonavista had standing in these proceedings. However, by not contacting the parties involved in the applications itself prior to the hearing, Bonavista had chosen to put itself at risk that the consultation requirements associated with the applications and its ability to speak to the applications may be found to be inadequate. On that understanding and subject to receiving the amalgamation certificate referenced by Bonavista and appropriately executed transfers of the wells involved, the examiners decided to proceed with the hearing.

2 ISSUES

The examiners consider the issues respecting the applications to be

- the need for the pooling order,
- the provisions of any pooling order if issued, including
 - whether pooling should be on a tract area or reserves basis, and
 - the costs and penalties that should be assessed in any pooling order issued,
- the need for the applied-for pipelines, and
- the routing of the pipelines and mitigation of the associated impacts.

3 CONSIDERATION OF APPLICATION NO. 1020308 FOR COMPULSORY POOLING

3.1 Views of the Applicant

Bonavista holds the natural gas rights leases from freehold mineral owners for the Bow Island Formation in the south half, northeast quarter, and a portion of the northwest quarter of Section 20. Pacific Cassiar holds the natural gas rights leases for the remaining 11.48 hectares in the northwest quarter of the section from freehold mineral owners.

The 5-20 well, drilled in July 1997, encountered productive gas reserves in the Bow Island Formation from the perforated intervals between the electric log depths of 1014.5 to 1020.5 m kelly bushing. The well is located 463.9 m north and 40.0 m east of the nearest sides of the section, off-target for spacing in effect for the area.

The 5-20 well was proposed as a development well for the purpose of obtaining oil from the Taber Formation. In response to questioning, Bonavista acknowledged that there was a discrepancy in the licence application, in that the proposed depth of the well would not be

sufficient to encounter the Taber Formation. It submitted that it had no knowledge of the reasons that may explain this discrepancy. Bonavista maintained however, that the licence was valid and accordingly the well was properly drilled.

Bonavista submitted that there had been attempts in the past to discuss and negotiate a voluntary pooling arrangement with Pacific Cassiar that had been unsuccessful. It therefore submitted that a compulsory pooling order was needed to allow production of the 5-20 well. Accordingly, it chose to pursue the pooling solution initiated by Pinnacle.

Bonavista agreed that only the zone identified by the perforated interval in the 5-20 well should be pooled, and it proposed that it be the operator of the 5-20 well under the requested order. It also proposed that costs and revenues associated with the 5-20 well be allocated on a tract area basis, providing Pacific Cassiar with a 4.43 per cent share. In support of this view, the application materials included a geological interpretation filed by Pinnacle, which showed reserves underlying virtually all of Section 20. Bonavista submitted its own geological interpretation of the zone of interest in the area on the basis that information from additional drilling occurring after Pinnacle had submitted the pooling application, should be incorporated into the geological interpretation of the area. Bonavista's interpretation, differing primarily in trend orientation, showed reserves underlying portions of the south half of Section 20, but no reserves underlying Pacific Cassiar's lands in the northwest portion of the section. However, it was Bonavista's view that allocation should be on a tract area basis, because the mapping is interpretative without appropriate control wells.

Bonavista further proposed that the full cost of drilling the 5-20 well to its total depth of 1088.0 m and completing it in the Bow Island Formation from 1014.5 to 1020.5 m be shared among tract owners in the section, because the well was not drilled significantly beyond the productive zone. It submitted that, since its predecessor had taken the risk to drill the 5-20 well, the maximum penalty allowed under the Oil and Gas Conservation Act should be applied to a tract's share of drilling and completion costs. Given Pacific Cassiar's limited interest in Section 20, the amount of money that the penalty would entail would be small. Therefore, Bonavista did not consider the penalty to be an extremely contentious issue. Bonavista agreed that the penalty would be applied only if a tract owner failed to pay its share of costs within 30 days of the later of the pooling order being issued, the well commencing production, and each tract owner being notified in writing of its share of the drilling and completion costs. Finally, Bonavista had no objection to a provision in the pooling order allowing Pacific Cassiar the option to take its production from the 5-20 well in kind.

3.2 Views of Pacific Cassiar

Pacific Cassiar opposed the issuance of a pooling order on the basis that there was a misrepresentation on the application for a licence for the 5-20 well, and on that basis, the well was improperly drilled. It noted that the application for a licence showed the well as a development well for the purpose of obtaining Taber oil, although there is no Taber oil in the general area, and the proposed depth of the well on the licence would not be deep enough to encounter the Taber zone. This suggested to Pacific Cassiar that the real purpose of the well was

to obtain gas from the Bow Island Formation, but since Pinnacle wished to avoid consultations with other gas rights holders such as itself prior to drilling the well, it improperly applied to licence the well as an oil well on a quarter section spacing unit.

If however, the Board decides to issue a pooling order, Pacific Cassiar indicated that it was not opposed to Bonavista being named operator of the 5-20 well under the order. It submitted that the order should apply only to the zone identified by the perforated interval in the 5-20 well, and that allocation under the order should be on a reserves rather than tract area basis. In support of its request for a reserves-based allocation, Pacific Cassiar submitted mapping of Section 20 which in its view, supported its contention that 15 per cent of the section's reserves were underlying Pacific Cassiar's tract. During the hearing, Pacific Cassiar released its confidential well logs for the 8-19 well showing, in its opinion, a rapid pay decrease in the easterly direction. For proprietary reasons, Pacific Cassiar was not prepared to release its regional geological maps.

Pacific Cassiar submitted that if a pooling order is issued, drilling and completion costs to be shared by tract owners should be discounted by 50 per cent, because the Taber target zone is below the pooled Bow Island zone. Pacific Cassiar also argued that the pooling order should not provide for any penalties if a tract owner does not pay its share of drilling and completion costs within the time specified in the pooling order. It submitted that no penalty should be applied because Pinnacle had drilled the 5-20 well under a questionable well licence, in a gas-prone area on quarter section spacing, without consulting with the other tract owner in the section, and at a seriously off-target location.

Finally, Pacific Cassiar submitted that any pooling order issued should allow it the option to take its production in kind.

3.3 Views of Other Interveners

Knight, a mineral owner which had leased gas rights in Section 20 to Pinnacle, filed a submission stating that pooling in Section 20 should be on a tract area basis. PCP, which had also leased gas rights in Section 20 to Pinnacle, filed a submission stating that it supported the Pinnacle pooling application. However, neither party was present to support their position and allow cross-examination.

3.4 Views of the Examiners

The examiners are concerned that there is a discrepancy in the licence application for the 5-20 well respecting the target zone, the total well depth provided and the Lahee classification. However, it is not unique that well licences have target zones which subsequently may not be encountered. There was no conclusive evidence at the hearing respecting the discrepancy between the projected total depth of the well, and the target zone, and therefore the examiners are unable to conclude that there was any misrepresentation on the well licence application or any other motive associated with it. The examiners note that the Board has previously dealt with the matter of reduced Drilling Spacing Units in its Informational Letter IL 82-14, Section 5.2. In

any event, the well licence was issued, and therefore, the 5-20 well was drilled lawfully and did encounter the Bow Island Formation. If Pacific Cassiar continues to believe the well was improperly drilled, it has the option of applying under section 42 of the Energy Resources Conservation Act for a review of the well licence, providing appropriate evidence to convince the Board that such a review is warranted. Arguments may also be presented if Pacific Cassiar wishes to pursue an application for an off-target penalty to be applied to the 5-20 well. On the basis of the foregoing, the examiners are prepared to consider the pooling application that has been filed. However, the examiners note that the 5-20 well licence was issued for an oil well and expects Bonavista to correct the Board's records accordingly.

The examiners note the inability of Pinnacle and Pacific Cassiar to reach a voluntary pooling arrangement. Further, in view of the nature of the disagreements between the parties, the examiners are of the view that further attempts by Bonavista would not likely have been successful. The examiners therefore conclude that a pooling order is needed to allow Bonavista to produce the reserves underlying Section 20 since diverse ownership exists in the spacing unit.

The examiners note that there is no dispute on the specific interval of the Bow Island Formation that should be pooled, or on the operator of the 5-20 well under a pooling order.

With respect to the basis for allocation of costs and revenues under a pooling order, the examiners note that section 72(4)(b) of the Oil and Gas Conservation Act states that such allocation "...shall be on an area basis unless it can be shown to the Board that that basis is inequitable".

The examiners have reviewed the mapping supplied by the parties and are of the view that some regional trends may be interpreted in the area. However, there is a lack of well control data to support detailed mapping within Section 20, and in the examiner's opinion, the interpretations presented for the section cannot be substantiated. Indeed, the three different interpretations presented are indicative that mapping within Section 20 is highly interpretative when considering the data currently available. Accordingly, the examiners believe that mapped reserves cannot be used as a basis for allocation and conclude therefore that allocation should be on a tract area basis.

The examiners believe that the actual costs of drilling the 5-20 well to its total depth and completing it in the formation to be pooled should be shared under a pooling order. In the examiners' view, the well, which had a total depth of 1088.0 m, was not drilled beyond the productive zone (1014.5-1020.5 m) to such an extent as to justify discounting the well costs as requested by Pacific Cassiar. With respect to the penalty provisions of a pooling order, the examiners note that it is standard practice in cases where there is an industry dispute on these matters for pooling orders to include a provision for the maximum penalty allowed under the Oil and Gas Conservation Act to be applied if well costs are not paid within the time specified in the order. The examiners accept that there have been no special circumstances presented in this case which would warrant a deviation from the standard practice respecting penalties. Therefore, the examiners believe that the order should provide for the maximum penalty allowed. The penalty

should be applied in accordance with normal Board practice if the tract owner does not pay its share of actual drilling and completion costs within 30 days of the later of the pooling order being issued, the well commencing production, or each tract owner being notified in writing of its share of the drilling and completion costs.

The examiners note that the usual pooling order issued by the Board includes a provision that would allow a tract owner to take its gas in kind, and see no reason why the pooling order resulting from the subject application should deviate from this practice.

4 **CONSIDERATION OF BONAVIDA’S PIPELINE APPLICATION NO. 1022809 AND PACIFIC CASSIAR’S PIPELINE APPLICATION NO. 1023336**

4.1 **Views of Bonavista**

Bonavista submitted that there is a need for a pipeline to allow the tie in and production of its 5-20 well. It noted that there is no firm capacity available in the nearby Pacific Cassiar compressor and facility at Lsd 13-19-6-21 W4M (the 13-19 facility), and hence use of Pacific Cassiar's nearby pipeline to transport gas from the 5-20 well would not be practical. Bonavista also noted that the proposed pipeline would allow gas to be transported to its underused facility at Lsd 16-35-6-22 W4M.

Bonavista submitted that, contrary to Pacific Cassiar's contention, Pinnacle had complied with Guide 56 *“Energy Development Application Guide and Schedules”* (Guide 56), respecting consultations with the owners of other facilities in the area of the proposed pipeline. Pinnacle had sent correspondence on two occasions and had verbal discussions with Pacific Cassiar in attempts to obtain pipeline and wellsite access road crossing agreements from Pacific Cassiar. However, Pacific Cassiar did not choose to respond to Pinnacle on these matters.

Bonavista submitted that, as there were no issues respecting its application for the pipeline to tie in the 5-20 well, and it had no objection to the Pacific Cassiar pipeline that would allow tie in of the 8-19 well, both pipeline applications should be approved, with the provision that the 8-19 well would not be permitted to produce while the 5-20 well remained shut in.

4.2 **Views of Pacific Cassiar**

Pacific Cassiar argued that Pinnacle's application for a pipeline to tie in the 5-20 well should be stayed because neither Pinnacle nor Bonavista had made any real effort to meet the requirements of Guide 56 and ascertain the availability for capacity in existing Pacific Cassiar facilities for gas produced from the 5-20 well. Pacific Cassiar acknowledged that it had received correspondence from Pinnacle respecting the pipeline and wellsite access road crossings, but it had not initiated negotiations with Pinnacle. In its opinion the onus was on Pinnacle and on Bonavista to pursue whether or not Pacific Cassiar's facility would be a viable alternative to building new facilities.

In response to questioning, Pacific Cassiar indicated that there was insufficient compression at its 13-19 facility for gas from the 5-20 well in the immediate future. It also indicated that it had no definitive plans to install additional compression at the facility; any plans for the facility would depend on the success of its drilling plans in the area.

With respect to its application for a pipeline to allow the tie in of the 8-19 well, Pacific Cassiar argued that there was no objection to the application, and therefore it should be approved. It also argued that it has the full spacing unit associated with the 8-19 well and therefore it would be an abuse of the Board's process to stall production from the 8-19 well pending resolution of the issues respecting tie in of the 5-20 well.

4.3 Views of Wilde Brothers

Wilde Brothers requested that both of the Pinnacle pipeline applications be denied. However, it did not raise specific concerns regarding Application No. 1022809, the Pinnacle pipeline that would allow tie in of the 5-20 well, but generally argued that existing facilities in the area should be used. Wilde Brothers did not file an objection to the Pacific Cassiar pipeline application.

4.4 Views of the Examiners

The examiners note Pacific Cassiar's statements that there is no firm capacity at the 13-19 facility for gas produced from the 5-20 well. The examiners accept that the competitive nature of pool development in the area would make it undesirable to delay producing the 5-20 well pending the uncertain possibility that Pacific Cassiar might someday install additional capacity. On that basis, the examiners are satisfied that there is a need for the pipeline proposed in Bonavista's Application No. 1022809.

The examiners do not accept Pacific Cassiar's argument that the applications should be denied because Bonavista has not complied with the requirements of Guide 56 to consult with the owners of existing facilities. In the examiners' view, the owners of existing facilities who are prepared to accept gas from other parties have an obligation to come forward with proposals or offers respecting the use of existing facilities when they become aware of proposals for new facilities. The examiners are satisfied that Pacific Cassiar was aware of the development adjacent to its lands and the need for facilities by Pinnacle. The examiners also consider that there has been ample opportunity for the parties to have further negotiations on the use of existing facilities since the pipeline applications were filed. On the other hand, the examiners do not consider applications for crossing agreements to constitute consultation or meet the intent of Guide 56 and believe that Pinnacle/Renaissance/Bonavista could have been more proactive in this area.

The examiners note that the routing of the Bonavista pipeline that would allow the tie in of the 5-20 well does not cross Wilde Brothers' property. The specific concerns raised by Wilde Brothers appear to relate to Bonavista's Application No. 1022978, which will be addressed later in this report.

The examiners note that no issues were raised respecting the need or routing of the proposed Pacific Cassiar pipeline, as applied for in Application No. 1023336.

In view of the foregoing, the examiners are prepared to recommend to the Board that both of Applications No. 1022809 and 1023336 be approved.

5 CONSIDERATION OF BONAVIDA'S PIPELINE APPLICATION NO. 1022978

5.1 Views of Bonavista

Bonavista submitted that there is a need for the pipeline to allow the tie in and production of its 1-27, 5-23, and 8-21 wells. In support of this, Bonavista supplied an economic evaluation of this project that indicated a project pay out of 15 months with 90 per cent certainty.

Bonavista stated that Pinnacle's initial inquiries suggested that there was insufficient capacity at Pacific Cassiar's potential alternative processing facilities in the area to warrant use of such facilities, which supported the need for its own pipeline system. Additionally, Bonavista submitted that there is currently a drainage concern at its 1-27 well caused by the production of Pacific Cassiar's adjacent 4-26 well and the recently installed booster compressor for this well.

Bonavista submitted that the proposed route avoided farm buildings, irrigation pivots, stored farm equipment and followed quarter section lines and the edge of an irrigation canal where possible and therefore, the route selection was almost ideal. It would locate the pipeline between the 1-27 well and the 5-23 well as close to the road allowance as possible (approximately 40 m from the centre of the road) as required by the existing local municipal by-laws. It would skirt the north edge of the pivots in the northeast quarter of Section 22-6-21 W4M (Section 22) and be located adjacent to an irrigation system right of way, diagonally through Section 22, north of Wilde Brothers' feed lot, but south to the 8-21 well.

In response to concerns raised by Wilde Brothers that the pipeline construction would cause problems with the ability of Wilde Brothers to operate a centre pivot irrigation system on Section 23-6-21 W4M (Section 23), Bonavista submitted that it would be prepared to construct the pipeline in a manner that would not inhibit the use of the irrigation system. It would be prepared to work with Wilde Brothers to resolve and mitigate any concerns in that regard, and had chosen some of its proposed route to minimize such land use interference. Additionally, in response to the concern that the pipeline needs to be at a depth of 155 centimetres (cm) (60 inches) in order to accommodate certain types of farming operations, Bonavista indicated that it would be flexible in placing the pipeline at that depth to accommodate this concern if necessary at appropriate locations.

Although Bonavista did not propose alternative routing, in response to questioning it discussed the relative merits of a few options. It suggested that a route due south, tying in the 1-27 and 5-23 wells to an existing pipeline at Lsd 6-2-6-21 W4M may eliminate disturbances in Section 22, but would raise possible concerns from southern landowners, including a country residential

development in Section 11-6-21 W4M. Also, the small diameter, low pressure pipeline tie in would require compression, not address the 8-21 well, and be physically longer. This would add higher costs to the proposed project. Routing the pipeline from the 8-21 well due north to Pacific Cassiar's west to east pipeline would also result in the need for compression and follow an existing right of way through non-irrigated, country acreages.

5.2 Views of Pacific Cassiar

Pacific Cassiar submitted that it objected to this application because Bonavista neglected to consult with it in accordance with Guide 56. Pacific Cassiar also questioned the accuracy of Bonavista's deliverability information, and contended that the application constituted a proliferation of facilities. Additionally, Pacific Cassiar indicated that it offered available capacity in its west to east pipeline system from the 4-26 well. It commented that from its experience of the area, well performance decline may be more rapid than that indicated in the Bonavista projections, thus reducing the gap between Bonavista's requested capacity and that which Pacific Cassiar presently could provide. In general, Pacific Cassiar saw the option of adding capacity in its pipelines as a good business opportunity that would provide some land use benefits.

5.3 Views of Wilde Brothers

Wilde Brothers' objection was based on the impact that the proposed pipeline would have on potential future plans to install a full section centre pivot irrigation system in Section 23 and buildings on the northwest corner of Section 23. Wilde Brothers indicated that some graneries, water, some other buildings, and a newly planted tree belt on the Northwest corner of Section 23 with potential for further development. Wilde Brothers also had potential future plans for a partial pivot system in the northwest quarter of Section 22. Wilde Brothers believed that the proposed pipelines would unduly restrict the ability to expand a livestock operation in Section 22 with the additions of future buildings and feedlots. Wilde Brothers believed that the proposed pipelines affected its right to control its own land and make the best choices on how they might continue their high intensity farming operations in the future.

Wilde Brothers stated that it does not want the pipeline on its land because of personal experiences and past difficulties working around pipelines. Wilde Brothers indicated that there were many problems such as soil compaction resulting from the installation of pipelines that would pose a problem with the operation of their centre pivot irrigation system and cause farm equipment damage if an uneven surface was encountered. Wilde Brothers' preferred route for this pipeline was to connect the wells to the existing Pacific Cassiar pipeline located to the north of the 8-21 and 1-27 wells. Wilde Brothers questioned why the pipeline proposed to be placed on its land in Section 23 could not be placed directly in the road allowance. It could not identify specific problems with locating a pipeline in a road allowance and expressed an opinion that someone should push for an exception from government set requirements. Additionally, it questioned why the pipeline could not go south from the 5-23 well to tie into the Bonavista south pipeline system in Section 2-6-21 W4M. Wilde Brothers cited that its neighbours do not make a living from their land or use their land as extensively as it does. It believed that if the neighbours were asked, they might accept a pipeline on their land. However, Wilde Brothers

indicated that if the pipeline had to pass through its land, it would have to be placed at least 155 cm (60 inches) deep to accommodate deep tillage.

Wilde Brothers indicated a general concern for the lack of public consultation that had occurred for the facilities in the area. For example, Wilde Brothers stated that past owners of the 8-21 well thought that it was a non-commercial well and now the new owner had a totally different view. Additionally, it stated that only very recently, the Wilde Brothers learned about directional drilling capabilities and criticized past well site negotiations where vertical holes were proposed without all alternatives identified, leading to increased land-use impacts. Wilde Brothers concluded that there should be more disclosure from industry and that industry needs to be more up front on its overall development plans when consulting with landowners.

5.4 Views of the Examiners

The examiners note that Pacific Cassiar had objections to this application due mostly to Bonavista's lack of consultation, and its belief that Bonavista's interpretation of its system deliverabilities were in question resulting in a proliferation of area facilities. The examiners also note Bonavista's view that its production needs would not be met by Pacific Cassiar's alternative. Due to the uncertain capacity in existing facilities, the examiners are satisfied that there is a need for the applied-for pipeline in order for Bonavista to produce the 1-27, 5-23, and 8-21 wells. The examiners believe that Bonavista should be allowed to make its own business decisions which, based on its view of deliverabilities in this case, favours separate facilities unless there are significant land-use or public interest issues suggesting otherwise.

While Wilde Brothers have the surface land rights to the lands in which the applied-for pipeline is to be constructed, the examiners note that Bonavista has the mineral rights encountered in the 1-27, 5-23, and 8-21 wells and therefore, also have the right to produce these wells.

Wilde Brothers' farming operations were cited as being very intensive, employing high cost techniques and equipment. The examiners believe that some impact will be felt but believe that proper care and application of good pipeline engineering practices will minimize impact. The route selection reflects a very reasonable effort to accommodate land uses into a design, which also meets the business needs of Bonavista.

The examiners note Wilde Brothers' concerns with soil compaction after the pipeline is installed and its indication that the minimum depth of cover of the applied-for pipeline is insufficient to accommodate the deep tilling farming operations on these lands. The examiners are satisfied that if an applicant adheres to the recommended environmental practices outlined in the Alberta Environmental Protection "*Guide for Pipelines*" (1994), as it relates to soil compaction, these impacts can be minimized. The examiners further note the comments by Bonavista that it would be flexible in installing portions of the pipeline to a minimum depth of cover of 155 cm (60 inches) and believe that there would be merit in doing so at specific locations that could be identified as appropriate candidates.

The examiners note Wilde Brothers' view that an alternative route off its lands where lower agricultural activity exists on neighbouring properties, or joint use of existing facilities are the best solutions to their concerns. From the evidence, these alternatives clearly represent an increased cost, less corporate control in a competitive industry, or both. There was no evidence filed by either party to show support by neighbouring landowners of alternative routes, and the examiners are not convinced that an argument respecting less agricultural activity alone would convince them or the Board to accept a higher cost alternative location. Additionally, the examiners have reviewed Wilde Brothers' various scenarios of pipeline routing and conclude that the proposed route selection is acceptable in terms of minimizing agricultural impacts on Wilde Brothers' property and providing for a workable gathering system. Further, the examiners believe that moving the pipeline entirely off Wilde Brothers' property would only have the effect of transferring any impacts to other landowners. With regards to setbacks from public road allowances or right of ways, the examiners note that these exist throughout the province to protect the public interest in the event expansion of road allowances are required.

The examiners are satisfied from its review of the evidence and site visit that there are no significant environmental concerns associated with the proposed routing. Additionally, although Bonavista did not address paralleling the Pacific Cassiar line the examiners note that its map showed that it would be approximately 1.6 km longer and would require additional landowner negotiations.

The examiners note Pinnacle's efforts to obtain pipeline easement agreements from Wilde Brothers. Bonavista, in accepting the original Pinnacle applications and not pursuing further discussions, had foregone any opportunity to conduct its own negotiations and build a start for a future relationship. However, the examiners expect Bonavista to be proactive in any further consultations with Wilde Brothers regarding specific needs for this pipeline. Additionally, the examiners encourage Bonavista to develop a method for public communication that would serve the life of the project. The examiners believe that providing alternatives during the public consultation stage provides for a better two-way exchange of information between two parties. The examiners believe that this would elevate some of the concerns raised about open communication options such as, directional drilling, as referenced by Wilde Brothers.

In view of the foregoing, the examiners are prepared to recommend to the Board that Application No. 1022978 be approved subject to a requirement that the pipeline be installed with a 155 cm (60 inches) minimum depth of cover in areas where it may impact deep tillage farming operations. Other options for mitigating impacts could include boring under the recently planted trees in the Northwest corner of Section 23.

6 RECOMMENDATIONS

6.1 Application No. 1020308

For the reasons noted previously, the examiners recommend that

- the Board, with the approval of the Lieutenant Governor in Council, issue an order under section 72 of the Oil and Gas Conservation Act designating that all tracts within Section 20 of Township 6, Range 21, West of the 4th Meridian, be operated as a unit for the production of gas from the Bow Island Formation identified between the interval from 1014.5 to 1020.5 m kelly bushing, through the well with the unique identifier of 00/05-20-006-21W4,
- the order allocate the costs and revenues associated with the drilling, completing, operating, and abandoning the 5-20 well on a tract area basis, with each tract's share being in the same proportion as the area of each tract is to the total area of the drilling spacing unit,
- the order designate Bonavista as the operator of the 5-20 well,
- the order provide for the payment by each tract owner of the costs of drilling the 5-20 well to its total depth, and completing it in the formation named in the order, and
- the order specify that a penalty equal to two times the tract's share of drilling and completion costs be applied to any unpaid amount if any owner fails to pay its share of costs within 30 days of the later of the pooling order being issued, the well being placed on production, and the tract owner being notified in writing of its share of costs.

6.2 Applications No. 1022809, 1022978, and 1023336

For the reasons noted above, the examiners recommend

- approval of Application No. 1022809, to construct 3.68 km of sweet natural gas pipeline from the well located in Legal Subdivision 5 of Section 20, Township 6, Range 21, West of the 4th Meridian to Legal Subdivision 9 of Section 23, Township 6, Range 22, West of the 4th Meridian,
- approval of Application No. 1022978, to construct 6.68 km of sweet natural gas pipeline from Legal Subdivision 1 of Section 27, Township 6, Range 21 West of the 4th Meridian, to Legal Subdivision 5 of Section 20, Township 6, Range 21, West of the 4th Meridian, to allow the transportation of gas from wells located in Legal Subdivision 8 of Section 21, Legal Subdivision 5 of Section 23, and Legal Subdivision 1 of Section 27, all of Township 6, Range 21, West of the 4th Meridian, with a minimum depth of cover for the pipeline to be at least 155 cm on lands of Section 23, Township 6, Range 21, West of the 4th Meridian where appropriate to accommodate farming operations,

- approval of Application No. 1023336 to construct 0.81 km of sweet natural gas pipeline from a well located in Legal Subdivision 8 of Section 19, Township 6, Range 21, West of the 4th Meridian, to Legal Subdivision 1 of Section 19, Township 6, Range 21, West of the 4th Meridian.

DATED at Calgary, Alberta, on 26 January 1999.

[Original signed by]

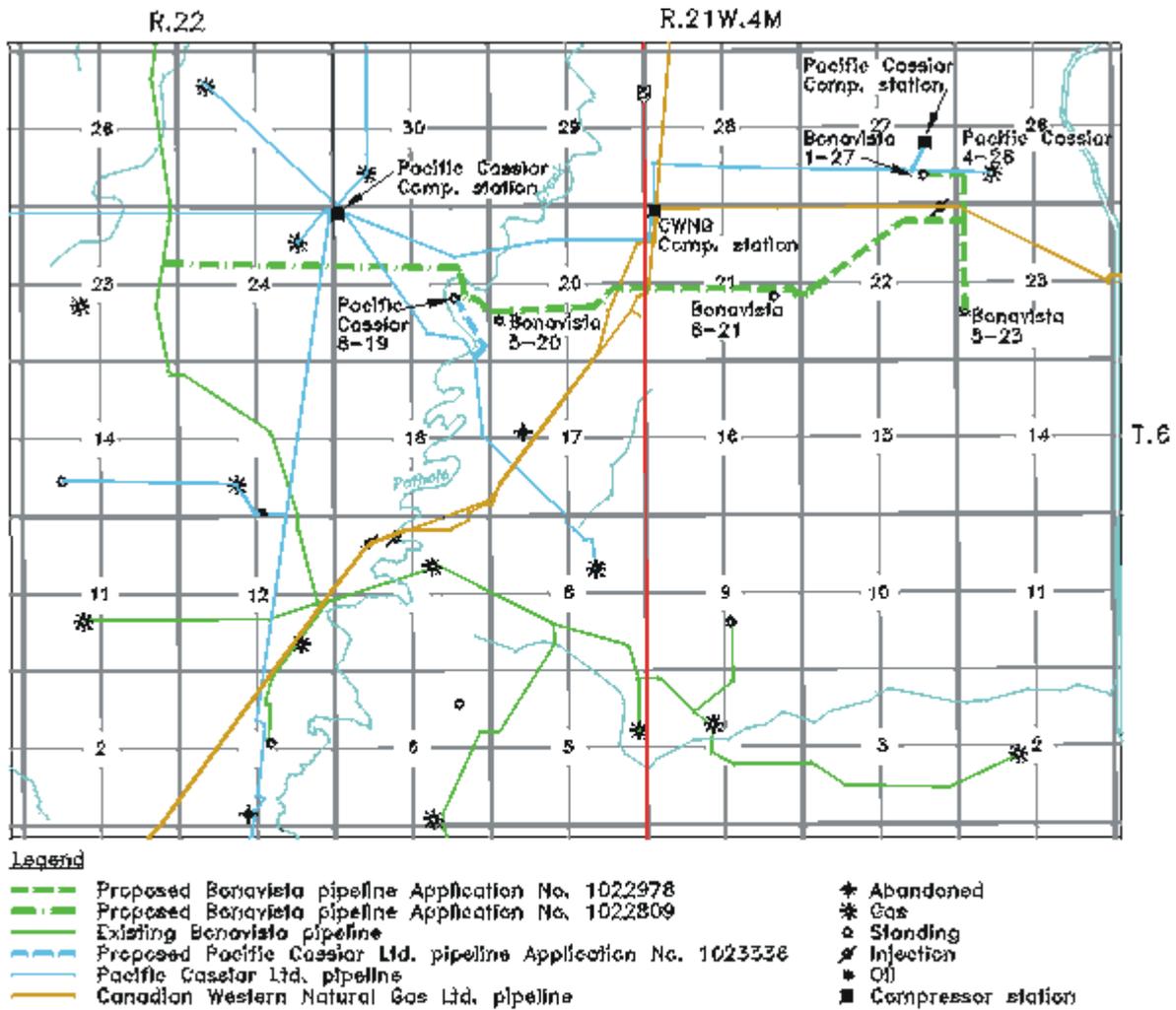
K. G. Sharp, P.Eng.

[Original signed by]

R. J. Willard, P.Eng.

[Original signed by]

E. A. Shirley, P.Geol.



MAGRATH AREA
 APPLICATIONS NO. 1020308, 1022809, 1022978 AND 1023336
 BONAVISTA PETROLEUM LTD. AND PACIFIC CASSIAR LTD.