1 INTRODUCTION

Amoco Canada Petroleum Company Ltd. (Amoco), on behalf of Alberta Ethane Development Company Ltd. applied on 9 April 1998, pursuant to Part 4 of the Pipeline Act for a permit to construct and operate approximately 61 kilometres of 219.0 millimetre outside diameter pipeline for the purpose of transporting high vapour pressure products from an existing pump station located in Legal Subdivision (Lsd) 15, Section 21, Township 31, Range 1, West of the 5th Meridian, to an existing pipeline tie-in point at Lsd 8-32-36-26 W4M. The proposed new pipeline would be an expansion of an existing HVP system and would parallel the pipeline on an existing right-of-way. The applicant indicated it had notified and had consent to construct the pipeline from all landowners affected by the new pipeline. Upon receipt and consideration of this application, the Alberta Energy and Utilities Board (EUB), on 15 April 1998, approved the addition of Line Nos. 24, 25, and 26 to Licence No. 13009.

The EUB received an objection on 1 June 1998 to a portion of the pipeline. The Archibalds, landowners of the SW3 27-33-28 W4M, requested that Amoco’s routing across their land be reviewed. The Archibalds stated they were not fully appraised of their rights when they signed consent for the pipeline routing, and wished to make representations regarding the adverse impact this pipeline will have on their farming operations and future subdivision potential. Accordingly, the EUB directed, pursuant to Section 43 of the Energy Resources Conservation Act, that a public hearing be held to consider that portion of the pipeline crossing the SW3 27-33-29 W4M. Amoco agreed to refrain from entering or constructing on the Archibalds’ property, pending the results from the hearing.

The location of the portion of the existing and proposed pipeline routes presented at the hearing are shown on the attached figure.

2 HEARING

At the opening of the hearing on 6 August 1998, the Archibalds requested an adjournment to the hearing, which was granted. The hearing was rescheduled to 25 August 1998. A request for a further adjournment was submitted by the Archibalds which the EUB also granted. The application was subsequently considered at a hearing in Calgary, Alberta, on 16 September 1998 before Board Member F. J. Mink, P.Eng., and Acting Board Members M. J. Bruni and K. G. Sharp, P.Eng. The Board panel and staff conducted a site visit of the proposed pipeline route and the surrounding area near Section 27 prior to the commencement of the hearing.
Those who appeared at the hearing are listed in the following table.

THOSE WHO APPEARED AT THE HEARING

<table>
<thead>
<tr>
<th>Principals and Representatives (Abbreviations Used in Report)</th>
<th>Witnesses</th>
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<tbody>
<tr>
<td>Amoco Canada Petroleum Company Ltd. (Amoco)</td>
<td>T. Bossenberry</td>
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<tr>
<td>B. J. Roth, Esq.</td>
<td>B. Van Troyen, P.Eng.</td>
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<td>B. Van Troyen, P.Eng.</td>
<td>B. Maxwell</td>
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<td>C. Jennings</td>
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<td>C. Jennings</td>
<td>E. Thomas, Cavalier Land Ltd.</td>
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<tr>
<td>Stephen and Barbara Archibald (the Archibalds)</td>
<td>S. Archibald</td>
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<td>S. K. Luft, Esq.</td>
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<td>Alberta Energy and Utilities Board staff</td>
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<tr>
<td>S. L. Cowitz, C.E.T</td>
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<tr>
<td>S. Kelemen, C.E.T</td>
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<tr>
<td>T. Donnelly, Board Counsel</td>
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3 PRELIMINARY MATTERS

At the outset of the original hearing on 6 August 1998, several issues were raised by the Archibalds in addition to their request for an adjournment. These issues regarded the validity of their signatures on the consent form, their status as local intervener, and a request for additional information associated with Application No. 1023468. The Board recognized that the Archibalds had effectively withdrawn their consent. The Board accepted that the Archibalds should be recognized as local interveners and in turn have the opportunity to obtain counsel to represent and assist them. Finally, Amoco was directed to provide the Archibalds with the information they had requested.

The Board must emphasize the importance of fairness in its process in allowing those who may be directly and adversely affected a reasonable opportunity, within the context of procedural rules of fairness. An element of this reasonable opportunity may be a hearing at which time issues are fairly, thoroughly, and objectively considered. This hearing has provided affected parties with that opportunity.

The public consultation process is an important part of the EUB application process. All parties, industry and landowner alike, should endeavour to work openly and cooperatively for the public consultation process to be effective. Regardless of the outcome of the public consultation process, the Board hearing process is always available to either party. In the Board’s view the evidence indicates that the essence of the public consultation requirements has been largely complied with in this instance although both parties could have been more aware of each other’s needs. The Board has reviewed and is satisfied that the pipeline meets the technical specifications in the
regulations and can be operated in a safe and proper manner.

4 ISSUES

The Board notes that the Archibalds did not dispute the need for the pipeline to permit Amoco to transport the increased demand for ethane within the province of Alberta.

The Board considers the issues to be:

$ route selection, and
$ impact on land use.

5 ROUTE SELECTION

5.1 Views of Amoco

An increased demand for ethane within the province of Alberta has resulted in a need for an expansion of the Alberta Ethane Gathering System, including that portion of the Didsbury loop discussed at this hearing. The route selected for the expansion makes use of the existing right-of-way which has the least impact environmentally and the least cost impact. This route makes synergistic use of existing facilities, including the Didsbury pump station and Amoco’s existing right-of-way. Weekly visual inspections are facilitated if both pipelines are in the same right-of-way. Amoco believed it has also fulfilled the requirements of Informational Letter 80-11 Joint Use of Right of Way (IL 80-11) regarding the Board’s direction to use an existing right-of-way when possible to avoid disturbance to undisturbed lands.

When considering alternative routes proposed by the Archibalds, Amoco contended that topography, pipeline crossings, residences in proximity, and additional land disturbance were factors against moving the proposed or existing pipeline. Relocation and lost opportunity costs related to moving the existing pipeline were estimated to be in the order of $1 to $1.5 million, resulting from shut down of the ANG Cochrane Plant, Shell Waterton and Jumping Pound Plants, and re-routing ethane into Joffre to avoid shutting down NOVA Chemicals Joffre Plant. Amoco believed that the Archibalds=Alternate Route No. 2 (see attached figure) would still require a road crossing as close to 90 degrees as possible due to county restrictions; therefore the route would look much the same as it is now.

Amoco indicated that consultation with affected landowners regarding Alternate Route No. 1 met with concerns regarding the re-route. Two affected landowners agreed to the re-route although they had reservations about the changes and preferred that the pipeline be left in the existing right-of-way. Another landowner would not accept the change due to concerns regarding the potential effect of the new route on his subdividable acreage. A number of other routes were considered by Amoco at the outset but dismissed as they involved several more landowners, more impacts, and more construction related costs.
5.2 Views of the Archibalds

The Archibalds argued that they believed IL 80-11 is intended to assist parties in minimizing the impact of multiple right-of-ways on one landowner's land. It is the Archibalds' position that putting another pipeline within the existing right-of-way will have a significant impact on the proposed use of their land and that alternate routes should therefore be considered by Amoco for the proposed and existing lines. The Archibalds conceded that they did not have an application before the Board to relocate the existing pipeline. However, approval of a second pipeline in the existing right-of-way would increase the difficulty of making any future application to have the existing right-of-way moved off the Archibalds' property.

The Archibalds also expressed concerns about the noise associated with the regular flights by Amoco's aircraft. The Archibalds suggested two alternative pipeline routes which would have less impact on their land. The Archibalds believed that Alternate Route No. 2 would avoid their property as well as the acreage kitty corner to their property, and it would be easier for the weekly visual inspection if Amoco's airplane had a straight line to follow.

5.3 Views of the Board

In the Board's opinion, Amoco applied appropriate consideration in its planning and development of the route proposed for this project. (Unfortunately, specific details regarding impact from alternate routes were minimal.) The evidence that was presented indicates that the alternative routes proposed by the Archibalds would effectively move the pipeline closer to other existing residences, would offer limited or no real environmental benefits and the net effect would be the transfer of impact from one party to another. There was little substantive evidence presented which would indicate that these residents would be receptive to these routes although there was some inference that some landowners object to the change. Neither party provided substantive evidence which clearly identified the impacts, feasibilities, or disadvantages of the alternate routes which makes it difficult to assess their feasibility.

Based on the evidence placed before the Board, the proposal by Amoco to use the existing right-of-way for its pipeline appears to have the least impact technically and environmentally and meets the spirit of IL 80-11. In the following section the Board will address the proposed route's compatibility with existing and proposed land use.

6 IMPACT ON LAND USE

6.1 Views of Amoco

In response to the Archibalds' concern regarding the impact the proposed pipeline will have on future subdivision potential, Amoco contended that the additional impact from the proposed pipeline is minimal. It maintained the addition of the proposed pipeline will not extend the life of the existing right-of-way, but will only add to the capacity of the system. Due to its ethane contract, Amoco agreed it will be utilizing this pipeline right-of-way regardless of whether the
additional pipeline is installed. With a proper maintenance and repair program, and the expected supply of ethane, long term plans are to continue to use the existing pipeline to transport this product.

Amoco also noted that the proposed pipeline would be constructed within seven metres of the existing pipeline. Given county setbacks, the new line would merely extend the existing setbacks for new subdivisions, assuming that the property is zoned for agricultural use and that application for relaxation from the county setbacks would be denied. Amoco submitted that the Archibalds' permanent residence is on a subdivided parcel of their land. Given the current restrictions on multiple subdivision of agricultural land, further subdivision on this property would require some major justification with the county and rezoning of their property. Notwithstanding that the potential for further subdivisions are uncertain, Amoco contended that the second pipeline will have minimal incremental effect on future subdivision. Amoco also submitted that it had offered to place the pipeline on the west side of the existing pipeline in order to reduce the potential impact on the Archibalds from county setback requirements if it addressed their concerns. This would require two crossings of its existing pipeline by the proposed pipeline.

Amoco pointed out that the parcel of land in question already had the encumbrance of the existing pipeline on it when it was purchased by the Archibalds. Amoco argued that it is unfair of the Archibalds to expect to purchase the property with this encumbrance and then, at the expense of Amoco moving its pipeline, enhance the value of the land beyond that at which they purchased it.

With regard to construction of the pipeline, Amoco proposes to strip the topsoil over a four metre wide area, centred over the trench line, in order to minimize disturbance. The work area will not be stripped of topsoil. The depth of cover over the pipeline will be one metre. Amoco will stipulate in its contract that the pipeline contractor ensures that all construction equipment arrives on the job site clean, that it is free of weeds and weed seeds; also that the contractor will check for and physically remove obvious accumulations of weeds and other types of vegetation from their equipment. Amoco noted that washing equipment is only done in special situations, such as to recognize needs such as those of the seed producer to the north, and was not considered a necessary option prior to entering the Archibalds' property. Any weeds that colonize on the right-of-way as a direct result of pipeline construction would be treated by Amoco until such time as the weeds are considered by the landowner and Amoco to be under control.

### 6.2 Views of the Archibalds

The Archibalds purchased the SW3 27-33-28 W4M in 1989 with the view that the 60-acre parcel has natural potential for subdivision, given the topography and excellent water well. The acreage kitty corner to the parcel eliminates the potential for anything other than residential development. The Archibalds are also considering the possible re-routing of County Road No. 283 to run between their existing residence and the pipeline right-of-way. This would increase the number of subdivisions the Archibalds could potentially apply for as well as reduce the danger of the intersection of Road No. 283 and the Wimborne Road.
It was the Archibalds′ understanding that the existing pipeline would possibly be in existence for another 20 years. In their view, the pipeline would then be too old to use, in which case the right-of-way would be removed, presenting the opportunity to subdivide the land without encumbrances. It is the Archibalds′ argument that putting a new pipeline in will extend the use of the right-of-way with respect to a pipeline; the new pipeline will last longer than the existing one which sterilizes the opportunity for subdivision for a longer time.

A report submitted on behalf of the Archibalds indicates that the setback distances from oil and gas facilities in agricultural areas in the County of Mountain View are 328 feet. It is the Archibalds′ submission that, with the setbacks imposed, the proposed pipeline would effectively sterilize a five acre parcel from future subdivision. The Archibalds did not agree with the suggestion that Amoco could cross the proposed pipeline to run on the west side of the existing pipeline if it imposes additional safety concerns for the workers. Moving the proposed pipeline to the west side of the existing pipeline did not eliminate or reduce their preference to have the existing pipeline removed from their property.

The Archibalds are also concerned with the impact that this pipeline will have on their farming operations. They maintained that at a depth of cover of one metre (36 inches) as proposed, there is the potential of hitting the pipeline when drilling fence post holes. As well, bringing the equipment into the field may compact the soil to the extent that a deep ripping machine is required to break the soil. The shanks on this equipment are 36 inches deep which would present constraints and dangers in operating this equipment over the right-of-way.

The Archibalds also expressed concern that pipeline construction would introduce noxious weeds onto their land. At this time the only noxious weed on their land and in the near area is Canada Thistle. The Archibalds believe that the only satisfactory method of preventing the spread of scentless chamomile and narrow-leaf hawksbeard into their farming operations is to wash the equipment prior to entering their property. Amoco′s proposal to scrape accumulations off the equipment is unsatisfactory to the Archibalds.

6.3 Views of the Board

The Board notes that the existing pipeline presents an encumbrance on the property which was in place when it was purchased by the Archibalds. In its view, subdivision potential was largely undefined, not adequately substantiated, and must be weighed accordingly. The Board also recognizes that the pipeline′s impact on future subdivision is subject to issues such as potential for relaxation of setback requirements and the need to rezone for land use. In addition, the Board believes that crossings of existing pipelines should be kept to a minimum and notes that the proposal to place the pipeline on the west side of the existing pipeline would not alleviate the Archibalds′ concerns.

The Board realizes that the right-of-way will be actively utilized to transport HVP products as long as Amoco has a supply of ethane and a market to which to move it.

With regard to weeds and construction, the Board expects Amoco to have regard for the Archibalds′ concerns and take appropriate action to address and mitigate the impact that construction may have on their property. In addition, further to section 42.1 of the Pipeline Act,
ground disturbance (fence posts, deep tillage) shall not be undertaken in the pipeline right-of-way without the approval of the pipeline licensee. Appropriate notification to the pipeline operator and marking of the pipeline locations should minimize any safety concerns for these operations.

The Board understands landowners’ frustrations with potential limitations imposed on development due to oil and gas facilities. However, the Board must weigh the impacts on an individual landowner relative to the public interest. From its site visit and aerial photographs submitted by Amoco, the Board is aware that residences exist in the area where both alternatives suggested by the Archibalds cross the NE3 of Section 28. While no specific evidence was presented, the Board would expect some impact on those individuals which they presently do not have. These alternatives would therefore have the effect of transferring the impacts from one individual to others.

While the Board recognizes the Archibalds’ preference that Amoco re-route this pipeline elsewhere, the evidence presented indicates that the proposed location is the most viable with the least impact in terms of economic, orderly, and efficient development.

7 DEcision

Having carefully considered all of the evidence, the Board is satisfied that the location for the pipeline proposed by Amoco is appropriate and confirms that Licence No. 13009, Line No. 26, remains in good standing.

DATED at Calgary, Alberta, on 13 October 1998.

F. J. Mink, P.Eng.*
Board Member

<Original signed by>

M. J. Bruni
Acting Board Member

<Original signed by>

K. G. Sharp, P.Eng.
Acting Board Member

* F. J. Mink, P.Eng. was not available for signing but concurs with the contents and the issuance of this report.
Legend
- Existing Pipeline ROW
- Amoco's Proposed Route
- Archibalds' Alternative Route No. 1
- Archibalds' Alternative Route No. 2

Current Land Features and Proposed Alternative Routes
Application No. 1023468
Amoco Canada Petroleum Company Ltd.