ALBERTA ENERGY AND UTILITIES BOARD

Calgary Alberta

PREHEARING MEETING LINDBERGH SECTOR, COLD LAKE OIL SANDS AREA Memorandum of Decision Decision 2002-071

CANADIAN NATURAL RESOURCES LIMITED APPLICATIONS FOR NEW AND AMENDED PRIMARY RECOVERY SCHEMES AND WELL LICENCES Applications No. 1086695, 1087189, 1087193, 1247164, 1247165, 1247166, 1247167, 1247168, 1247171, 1247172, 1247178, 1248249, 1248252, 1248255, 1249233, 1252711, 1252712, 1259621, and 1259622

AND

PETROVERA RESOURCES LIMITED
APPLICATIONS FOR A NEW PRIMARY
RECOVERY SCHEME AND WELL LICENCES

Applications No. 1248262, 1086164, 1087064, 1087238, 1241670, 1241671, 1241672, 1241673, 1241674, 1241675, 1241676, 1241677, 1241678, 1256328, 1256330, 1256334, and 1256335

1 INTRODUCTION

Canadian Natural Resources Limited (CNRL) and Petrovera Resources Limited (Petrovera) applied to the Alberta Energy and Utilities Board (EUB/Board) for approval to construct and operate new schemes and to amend existing schemes, for the recovery of crude bitumen from the Mannville Group in a combined total of 38 and three-quarter sections, as shown on the attached figure. The companies propose that the well spacing for the areas shown be reduced from 16 or 64 hectares to 8 hectares, that wells drilled or to be drilled within the scheme areas have a minimum interwell distance of 100 metres (m), and that the schemes have a project boundary buffer of 50 m.

Additionally, CNRL applied for licences for 3 vertical wells and 52 directional wells to be drilled from 13 well pad sites in the locations shown on the figure. Petrovera has already obtained licences for 3 vertical wells that have been drilled, and in addition it applied for licences for 13 vertical wells in the locations indicated on the figure.

Having regard for the numerous concerns respecting the applications that were raised by area residents and have not been resolved, the Board directed that the subject applications be considered at one or more public hearings. However, before scheduling any public hearing, the Board considered that it would be useful to obtain further information from the interested parties that might allow the hearing or hearings to be conducted in a more effective manner.

The EUB held a prehearing meeting in Elk Point, Alberta, on June 26, 2002, before Presiding Board Member J. R. Nichol, P.Eng., and Acting Board Member R. H. Houlihan, P.Eng., Ph.D. The third member of the panel, Board Member J. D. Dilay, P.Eng., was not available to attend the prehearing meeting but has reviewed the transcript.

Those who participated in the prehearing meeting are listed in Appendix A. The Board also accepted a written submission dated July 11, 2002, respecting the matters considered at the prehearing meeting from counsel for Mr. I. Peterson and Mr. A. Opanavicius.

2 ISSUES CONSIDERED AT AND ARISING FROM THE PREHEARING MEETING

The Board considered the following matters arising from the prehearing meeting:

- the timing of hearings scheduled and deadlines for the filing of submissions to the hearing or hearings;
- whether all the applications should be considered in a combined manner at a single hearing or whether the CNRL applications and the Petrovera applications should be considered at two separate, consecutive hearings;
- the scope and nature of the issues to be discussed at any hearing or hearings; and
- any other matters.

In an effort to aid the participants in focusing on the scope and nature of the issues to be considered at any hearing or hearings to be scheduled, the EUB staff distributed a list of issues obtained from objections already filed with the EUB, as shown in Appendix B, and asked that parties comment on the appropriateness of the issues listed and identify any other issues that should be considered.

3 VIEWS OF THE APPLICANTS

With respect to the timing of a hearing or hearings, CNRL and Petrovera noted that considerable time had passed since the applications were filed with the EUB, and both wanted a hearing of their respective applications to take place as early as possible. They also stated that they were committed to the continuation of the Appropriate Dispute Resolution (ADR) process up until the time of the hearings.

CNRL suggested that the scheduled hearing dates be some compromise between its preferred date in early September 2002 and the November 2002 date suggested by some participants at the prehearing meeting. Petrovera suggested that the hearings be held at the end of October or early November 2002, to avoid the summer and harvest. With respect to deadlines for the filing of submissions, CNRL said that if the Board directed an information request (IR) process, the dates for submissions and responses should be set out clearly. Petrovera suggested that all submissions should be filed a maximum of two weeks prior to any hearing date.

CNRL and Petrovera both stated that there were differences in the issues arising from their

respective applications and that therefore each company's applications should be heard separately. This would better allow the hearing participants to keep the issues clear with respect to each company. The applicants did not object to the hearings being held consecutively. Petrovera submitted that it was agreeable to accommodating those individuals who had concerns overlapping the two sets of applications so that they would not need to make two separate presentations on any particular issue.

Neither CNRL nor Petrovera had any issues to add to those listed in Appendix B.

4 VIEWS OF THE INTERVENERS

Some participants submitted that to date the applicants had not conducted adequate consultations and negotiations to resolve issues raised by residents. They expressed the view that no hearings should be scheduled until the applicants could show that they had supplied complete and clear information and application materials to all potentially affected parties, had made diligent efforts to consult and negotiate directly with residents to try to resolve the concerns raised, and had addressed problems with existing operations.

With respect to the timing of any hearings scheduled, there was opposition to any hearing taking place in the summer months or at harvest time. Suggestions for timing ranged from November 2002 at the earliest, to February 2003, to as late as 2005. The view was also expressed that any hearing date should provide sufficient time to resolve issues through the ADR process in cases where parties were engaged in the process or were interested in engaging in the process to try to resolve issues. With respect to deadlines for submissions, Mr. Fitch requested that the Board require any rebuttal evidence by the applicants to the interveners' written submissions to be filed prior to the hearing so that interveners would not be faced at the hearing with evidence they had never seen before.

With respect to whether the CNRL and Petrovera applications should be considered in a combined hearing or in separate hearings, a small majority of the participants favoured separate hearings on the basis that doing so would allow participants to keep the different issues clear for each company, and those who had concerns with only one company would not need to be involved in the hearing of the other company's applications. The remaining participants were of the view that a combined hearing would be more efficient in terms of time and resources and that it would not be difficult to keep the issues respecting the two companies separate.

Some participants commented at length on the issues listed in Appendix B respecting the applications. However, there was general agreement with all of the issues listed. In addition, the following issues not originally listed in the appendix were raised:

- the need for reduced spacing, and
- the concern that proposed developments would have a negative impact on the quality of life.

5 VIEWS OF THE BOARD

Having considered the views expressed at the prehearing meeting, the Board finds that the applications should be considered at consecutive hearings in Elk Point, Alberta, commencing on November 5, 2002, with the CNRL applications. While the Board supports ongoing consultation and ongoing ADR efforts, the Board believes that setting the hearing dates in November of this year will provide sufficient time to complete farming operations, appropriate information exchanges, and the ADR process. It is the Board's experience that setting the hearing date provides the parties with the incentive to conduct both meaningful and timely discussions.

The hearing of the Petrovera applications will commence on November 13, 2002. Should the CNRL hearing not be completed during the previous week, the starting date of the Petrovera hearing will be adjusted accordingly.

As indicated above, the Board has determined that the CNRL and Petrovera applications will be heard consecutively, rather than concurrently by some parties. A concurrent hearing would have avoided the need for any participants to repeat their testimony on issues common to both companies' applications at two separate hearings. The Board is sympathetic to the concerns raised by the interveners respecting this potentially duplicative process. However, the Board believes that the separation of the two applicants' applications removes the risk that an individual intervener's evidence and testimony will be directed at the wrong applicant. The separation of the hearings will also ensure that the record with respect to each company's applications is complete and that all parties are treated fairly.

The Board does not believe that a Board-directed IR process is necessary to complete the record prior to the hearing. However, it agrees that all submissions and any rebuttal evidence to those submissions should be filed prior to the hearing. The Board has established the following deadlines for these hearings:

September 16, 2002 - CNRL final submission and additional information September 23, 2002 - Petrovera final submission and additional information

October 15, 2002 - CNRL intervener submissions

October 21, 2002 - Petrovera intervener submissions

October 25, 2002 - CNRL reply to intervener submissions

October 31, 2002 - Petrovera reply to intervener submissions

A formal notice of hearing will be issued for each hearing in due course. A copy of the notice will be sent directly to each party that participated at the prehearing meeting, those parties that provided written objections to the applications to the EUB but did not attend the prehearing meeting, and all of the other parties identified in the applications as being potentially affected by the proposed developments. The notice will also be published in the local newspapers.

With respect to the scope and nature of the issues to be considered at the hearings, the Board accepts that the issues listed in Appendix B, including the two issues noted above under "Views of the Interveners," fairly represent the scope of the issues that may be considered at the

hearings. The Board wishes to emphasize, however, that this list is not intended to limit or prevent any party from raising any other relevant issues not previously identified. In any event, evidence a party wishes to present for consideration during the course of the hearings should be included in that party's submissions to the hearings.

6 OTHER MATTERS

6.1 Adequacy of Public Consultations

Although the purpose of the prehearing meeting did not include hearing specific evidence respecting any of the issues related to these applications, the Board heard from a number of the interveners respecting the absence or inadequacy of public consultation and information exchange conducted by the applicants. In the absence of detailed evidence and cross-examination of that evidence by all parties, the Board does not believe it would be appropriate to provide any specific comments on this issue at this time. All parties will have the opportunity to address this matter in full detail during the actual hearings.

Without commenting specifically on the applications in these proceedings, the Board does wish to comment briefly on the importance of meaningful consultation. Open, effective, and complete consultation by an applicant with all potentially affected parties is the first step in establishing a sound, long-term relationship with those parties, and it is the applicant that is at risk if its consultation program does not meet EUB expectations. In the short term, an applicant may be faced with the extended timelines associated with dealing with a nonroutine application and, as is the case in these applications, with having to deal with a formal public hearing. In the long term an applicant may be faced with the prospect of dealing with continued objections during the operating life of the development in question.

Request by the Stewarts for the Removal of Four Sections from the CNRLApplications¹

Ken and Maureen Stewart, who have a residence in Section 36 of Township 56, Range 6, West of the 4th Meridian (Section 36-56-6W4M), requested that Sections 31-56-5W4M, 25, 36-56-6W4M, and 6-57-5W4M be removed from the CNRL applications because they had not received proper notification or timely and complete responses to their information requests. Given CNRL's commitment to attempt to address the concerns of the affected landowners in a meaningful and prompt manner, and the fact that the hearing has been scheduled for November, the Board is satisfied that there is adequate time to ensure a full and complete exchange of information. In addition, EUB staff will be available to assist the parties and ensure that the information exchange occurs in a timely manner. Furthermore, the EUB could not simply direct

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¹ CNRL Application No. 1087189, for reduced well spacing, includes Sections 31-56-5W4M and Sections 25 and 36-56-6W4M. Section 6-57-5W4M is not included in any of the subject CNRL applications for reduced well spacing under consideration but is involved in CNRL well licence Application No. 1247168, which is an application for a pad site located in Legal Subdivision (LSD) 4-6-57-5W4M, Application No. 1248249, which is an application for a pad site in LSD 13-6-57-5W4M, and Application No. 1247178, which is an application for a pad site in LSD 16-5-57-5W4M.

an applicant to remove or change part of its application without providing the opportunity to be heard.

6.3 Request by Walter Saranchuk for a Hydrogeology Study

Mr. Walter Saranchuk, on behalf of the seven co-owners of the Lindbergh water system, requested that a hydrogeology study be done to address the possible impacts of the proposed developments on their water supply, which is fed by springs.

Given that the Lindbergh water system is totally surrounded by the proposed development lands of the two applicants and that a number of landowners/residents are dependent on this water source, the Board believes that it would be appropriate to have a full understanding of the ground water flow regime before any significant development takes place. This hydrogeology information would allow for the assessment of the need for any additional or special mitigative measures and provide a baseline for the evaluation of any post-development problems, should they occur. The Board therefore expects CNRL and Petrovera to work together to complete the appropriate hydrogeology study. Furthermore, it is expected that this work will be completed in an expeditious manner and that the report will be provided to Mr. Saranchuk, the EUB, and any other interested parties prior to the established submission deadlines.

6.4 Existing CNRL Operations

A number of the participants at the prehearing meeting suggested that because CNRL had not addressed issues with its existing operations in a timely manner, the EUB should not consider any new applications from CNRL until the outstanding issues with existing operations have been addressed.

The EUB's legislated mandate requires the Board to consider each application on its own merits, and therefore it would be inappropriate for the Board to prejudge the disposition of a new application based solely on an applicant's existing operational record. Consequently, the Board is not prepared to defer consideration of the CNRL applications pending resolution of any outstanding operational matters.

Although the Board will not consider remedies to address any existing operational concerns during the hearing of the applications in question, the Board is prepared to receive evidence at the hearing respecting CNRL's operational record to date. Consideration of the applicant's record would be in the context of its ability to take on new or expanded responsibilities in light of its track record to date and of how this record should influence the Board's decision with respect to the disposition of the applications currently before it.

With respect to any existing operational problems, the Board would encourage the affected parties to first contact the licensee of the facility regarding their issues or concerns. If this first contact does not result in a timely or effective resolution of the concern, then the affected party should contact the EUB's Bonnyville Field Centre at (780) 826-5352. EUB field staff will follow up on the complaint and ensure that the appropriate remedial measures are initiated as necessary. If the licensee is found to be in noncompliance with the regulations or the conditions of the

facility approval, the EUB will initiate the required enforcement action. Enforcement action varies depending on the nature and severity of the noncompliance, but it may include the shutting down of facilities until the problem is rectified.

Dated at Calgary, Alberta, on July 26, 2002.

ALBERTA ENERGY AND UTILITIES BOARD

<Original signed by>

J. R. Nichol, P.Eng. Presiding Board Member

<Original signed by>

R. H. Houlihan, P.Eng., Ph.D. Acting Board Member

<Original signed by>

J. D. Dilay, P.Eng. Board Member

APPENDIX A

THOSE WHO PARTICIPATED AT THE PREHEARING MEETING

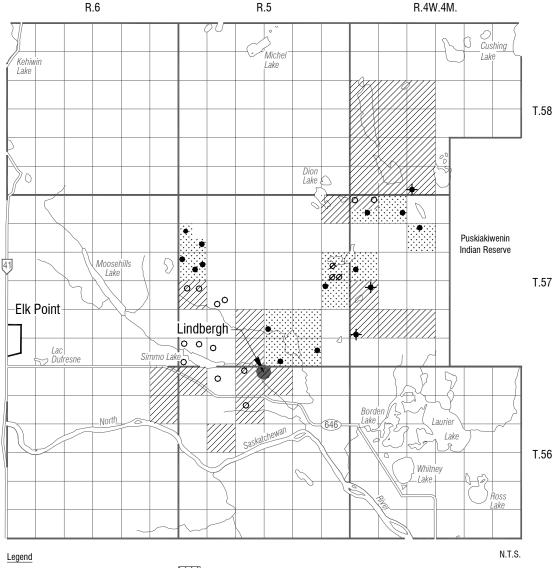
Principals and Representatives (Abbreviations Used in Report)	Representatives
Canadian Natural Resources Limited (CNRL)	P. McGovern
Petrovera Resources Limited (Petrovera)	B. Evans
J. Bodner	
L. Darling	
S. G. Dunham	
T. Dunham	
R. Hellquist	
Kevin and Debbie Lawrence, on their own behalf and on behalf of Darron Lawrence	
S. Lundgren	
J. Morris	
R. Morris	
J. Nielson, on behalf of the Elk Point Chamber of Commerce and the Fire Department	
I. Peterson and A. Opanavicius	G. Fitch (written submission)
W. Saranchuk, on behalf of seven co-owners of the Lindbergh water system	
B. Smith	
M. Stewart and K. Stewart	
EUB staff G. Perkins, Board Counsel S. Cartwright K. Fisher G. McClenaghan L. Wilson Temple	

APPENDIX B ISSUES RAISED BY PARTIES FILING OBJECTIONS

- 1) Noise
- 2) Traffic: timing and routing
- 3) Dust control
- 4) Impacts of development on water wells, including (a) impact of drilling on springs feeding water wells, (b) monitoring of water quality before and after seismic and drilling activity, and (c) depth of surface casing to protect water quality
- 5) Impacts of drilling on surface water
- 6) Air quality, including (a) odours, (b) monitoring of air quality, and (c) collection of casing gases
- 7) Environmental pollution, including (a) spreading of drilling fluids, (b) containment of tank fluids, (c) effects of development on ecologically sensitive areas, and (d) waste of trees
- 8) Impact of development on wildlife
- 9) Environmental liability
- 10) Need for underground power lines
- 11) Hydrogen sulphide emissions
- 12) Emergency response plan
- 13) Weed control
- 14) Interference of proposed development with airport and flight path
- 15) Visual impacts of development
- 16) Pad site locations
- 17) Directional wells should not be drilled under adjacent landowner's property without compensation
- 18) Lack of use of local contractors
- 19) Devaluation of property due to development
- 20) No well should be drilled in the Lindbergh Valley or near Iron Horse Trail because of environmental impacts of developments
- 21) Lack of proper notice and discussion by applicant(s) with affected landowners
- 22) No further development should occur until issues from previous developments resolved

Additional submissions respecting the subject applications raised the following issues:

- 23) Negative impact of proposed development on the quality of life
- 24) Need for reduced well spacing



Proposed crude bitumen well

CNRL new and amended primary recovery schemes

Drilled and cased wells

Petrovera primary recovery scheme Natural gas well surface locations

O CNRL crude bitumen well pad surface location

Lindbergh Area

Canadian Natural Resources Limited

Applications No. 1086695, 1087189, 1087193, 1247164, 1247165, 1247166, 1247167, 1247168, 1247171, 1247172, 1247178, 1248249, 1248252, 1248255, 1249233, 1252711, 1252712, 1259621, and 1259622

Petrovera Resources Limited

Applications No. 1248262, 1086164, 1087064, 1087238, 1241670, 1241671, 1241672, 1241673, 1241674, 1241675, 1241676, 1241677, 1241678, 1256328, 1256330, 1256334, and 1256335

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