

ALBERTA ENERGY AND UTILITIES BOARD

Calgary Alberta

**SHELL CANADA LIMITED
APPLICATIONS FOR WELL, PIPELINE,
AND ASSOCIATED FACILITIES LICENCES
WATERTON FIELD**

**Decision 2008-127 Errata
Applications No. 1498479,
1483571, 1520938, and 1520937**

The Alberta Energy and Utilities Board (EUB/Board), subsequently replaced by the Energy Resources Conservation Board (ERCB), issued *Decision 2008-127* arising from the hearing held in Pincher Creek, Alberta, that commenced on September 18, 2007. The Board has since discovered errors in two areas of this document.

On page 1, Section 2.1, paragraph 1, sentence 1 reads: “Application No. 1498479 was submitted Alberta Energy and Utilities Board (EUB/Board).” The sentence, with the change in bold, should read: “Application No. 1498479 was submitted **to the** Alberta Energy and Utilities Board (EUB/Board).”

Appendix 1: Hearing Participants, pages 7 to 8, identifies “S. Salonen” as a witness for the Board. It should be identified, with the change below, that “S. Salonen” was a witness for M. Sawyer.

Principals and Representatives (Abbreviations used in report)	Witnesses
S. Salonen M. Sawyer	S. Salonen

The Board considers that the corrections to the areas identified and noted above properly reflect the evidence and the Board’s intention in *Decision 2008-127*. Therefore, the Board approves the above-noted corrections to *Decision 2008-127*.

Dated in Calgary, Alberta, on December 19, 2008.

ALBERTA ENERGY AND UTILITIES BOARD

<original signed by>

T. M. McGee
Presiding Member

<original signed by>

W. G. Remmer, P.Eng.
Acting Board Member



Shell Canada Limited

Applications for Well, Pipeline, and Associated Facilities
Licences
Waterton Field

December 16, 2008

ALBERTA ENERGY AND UTILITIES BOARD

Decision 2008-127: Shell Canada Limited, Applications for Well, Pipeline, and Associated Facilities Licences, Waterton Field

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CONTENTS

1	Decision	1
2	Introduction.....	1
2.1	Applications.....	1
2.2	Interventions	2
2.3	Hearing	2
3	Background.....	3
4	Discussion.....	3
4.1	Views of Shell	4
4.2	Views of the Interveners.....	4
4.3	Views of the Board.....	5
	Appendix 1 Hearing Participants.....	7
Figure 1	Map of Shell's proposed well site, pipeline, and associated facilities	9

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Calgary Alberta

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APPLICATIONS FOR WELL, PIPELINE,
AND ASSOCIATED FACILITIES LICENCES
WATERTON FIELD**

**Decision 2008-127
Applications No. 1498479,
1483571, 1520938, and 1520937**

Effective January 1, 2008, the Alberta Energy and Utilities Board (EUB) was realigned into two separate regulatory bodies, the Energy Resources Conservation Board (ERCB), which regulates the energy industry, and the Alberta Utilities Commission (AUC), which regulates the utilities industry.

Although on January 1, 2008, the *Alberta Energy and Utilities Board Act* was repealed, subsection 80(3) of the *Alberta Utilities Commission Act* provided that if a Notice of Hearing was issued prior to January 1, 2008, the EUB would complete the proceeding. In this case, the Notice of Hearing was issued on July 27, 2007, and a subsequent Notice of Rescheduling of Hearing was issued on September 10, 2007; therefore, this hearing was continued as an EUB proceeding.

1 DECISION

Having conducted a hearing to consider Applications No. 1498479, 1483571, 1520938, and 1520937, the Board hereby denies, without prejudice to future applications, the subject applications by Shell Canada Limited (Shell).

2 INTRODUCTION

2.1 Applications

Application No. 1498479 was submitted Alberta Energy and Utilities Board (EUB/Board), pursuant to Section 2.020 of the *Oil and Gas Conservation Regulations (OGCR)*, for a licence to drill a level-3 critical sour gas well from a surface location at Legal Subdivision (LSD) 10, Section 1, Township 6, Range 3, West of the 5th Meridian, to a projected bottomhole location at LSD 12-36-5-3W5M (10-1 well). The cumulative drilling hydrogen sulphide (H₂S) release rate would be 4.9 cubic metres per second, and the associated H₂S concentration in the gas would be about 356 mole per kilomole (mol/kmol) (35.6 per cent), with a corresponding calculated emergency planning zone (EPZ) of 6.78 kilometres (km). However, Shell chose to use an EPZ of 6.9 km. The purpose of the proposed 10-1 well would be to obtain gas production from the Rundle group.

Application No. 1483571 was submitted, pursuant to Part 4 of the *Pipeline Act*, for approval to construct and operate a pipeline for the purpose of transporting natural gas from the proposed 10-1 well to a pipeline tie-in point at LSD 6-12-6-3W5M. The proposed pipeline would be about 1.19 km in length, with a maximum outside diameter of 168.3 millimetres, and would transport natural gas with a maximum H₂S concentration of 320 mol/kmol (32 per cent). The proposed pipeline would be operated as level-2 pipeline.

Shell also applied to construct and operate a new fuel gas pipeline in the same right-of-way as the pipeline previously described to supply fuel from the existing compressor station at LSD 6-12-6-3W5M to the proposed 10-1 well site.

Application No. 1520937 was submitted, pursuant to Section 7.001 of the *OGCR*, for approval to amend the existing facility at LSD 6-12-6-3W5M. The amendment would consist of the addition of a new fuel gas compressor. The facility would be licensed for a maximum H₂S content of 320 mol/kmol (32 per cent), and the proposed compressor would be 71 kilowatts.

Lastly, Application No. 1520938 was submitted, pursuant to Section 7.001 of the *OGCR*, for approval to construct and operate a single-well gas battery at the proposed 10-1 well site. The maximum H₂S content of the inlet gas would be 320 mol/kmol (32 per cent). The proposed facility would consist of a well site heater, downhole water circulation system, metering system, pig launcher, flare stack, flare knockout drum, and deep-set injection system.

The proposed well would be about 5.8 km southwest of Beaver Mines.

2.2 Interventions

Objections were received from a number of area landowners and resident and community groups in the vicinity of the proposed project stating concerns about the environment, public safety, air quality, area development, and location of the proposed 10-1 well site.

About 19 members of the community, including residents inside and outside the EPZ, formed the Friends of Mount Backus (FOMB) to object to the project.

The Castle Crown Wilderness Coalition (CCWC) represented a number of its members who resided within and some who resided outside of the EPZ. Both sets of members requested that CCWC represent their interests as the members themselves were not able to attend the hearing.

As well, the Seven Gates group, comprising residents within the EPZ, originally objected to the proposed project. It met several times with Shell during its consultation and up to the hearing in one-on-one discussions and in facilitation through the appropriate dispute resolution process, as a result of which most of its members believed they were working towards an acceptable agreement with Shell. The Board received letters withdrawing their objections from all individuals in the Seven Gates group on September 17 and 18, 2007, with the exception of Stuart McDowall and Irene McDowall, who did not participate in the hearing.

Lastly, Ms. Stephanie Salonen intervened individually as a resident within the EPZ.

2.3 Hearing

The EUB held a prehearing meeting on June 15, 2007, to consider the issues and timing of the hearing and consequently issued *Decision 2007-053* on June 29, 2007. Subsequently, a hearing commenced on September 18, 2007, before Presiding Board Member T. M. McGee and Acting Board Members D. A. Larder, Q.C., and W. G. Remmer, P.Eng. Mr. Larder withdrew from the panel on September 18, 2007, leaving the panel with a two-member quorum.

The Board panel and staff conducted a site visit of the proposed project area on September 17, 2007.

Due to availability of various parties, the hearing was adjourned on September 21, 2007, and resumed on October 2, 2007. The Board considers the hearing to have been closed on October 5, 2007. Those who appeared at the hearing are listed in Appendix 1.

3 BACKGROUND

On November 19, 2007, a pipeline licensed to Shell, which was transporting sour gas from LSD 6-17-6-2W5M to LSD 10-7-6-2W5M, sustained an uncontrolled release at LSD 14-8-6-2W5M. The leak occurred about 3.2 km from the closest portion of the proposed project. Several residents in the area were evacuated as a result of the release, and others were required to shelter in their homes. This incident was investigated by Shell and the EUB.

On November 29, 2007, the Board sent a letter to all interested parties to the hearing asking their opinion as to how the Board should proceed given the proximity of the project to the pipeline release. The letter asked if they believed the Board should continue with the decision process or wait until a report on the investigation of the release had been issued. Many interveners responded to the letter, with most believing that the Board should consider the results of the investigation report before proceeding.

On December 20, 2007, the Board sent a response letter to all interested parties confirming that the Board would defer further consideration of the subject applications until the issuance of a pipeline investigation report regarding the pipeline release. The Board indicated that following the issuance of the report, it would provide an opportunity for interested parties to make written submissions on the relevance of that report to the applications and the ongoing process to consider the applications.

On February 15, 2008, the EUB sent another letter to interested parties advising them that the pipeline investigation report, which had been anticipated to be released in February 2008, was not expected until mid-2008. The delay was attributed to Shell's inability to provide the ERCB with information about the incident required to complete the report.

On October 7, 2008, the ERCB released *ERCB Investigation Report: Shell Canada Limited, Sour Gas Pipeline Failure, Licence No. 23800, Line No. 61, November 19, 2007*.

Having regard for the EUB's letter dated November 29, 2007, indicating it would seek submissions on the merits of reopening the hearing to consider the contents of the pipeline investigation report, the EUB issued a letter to all interested parties on October 15, 2008, providing them an opportunity to comment on the relevance of the ERCB pipeline investigation report to Shell's applications. The submissions deadline was set for November 14, 2008, and later extended to November 24, 2008. The EUB received responses from hearing participants FOMB, CCWC, S. Salonen, and Shell. Three other interested parties that did not participate in the hearing filed submissions.

4 DISCUSSION

Following careful examination of the arguments set forth by hearing participants and interested parties in response to the October 15, 2008, letter, the EUB recognizes that the vast majority of

the submissions take the position that a standalone public inquiry into Shell's gathering system should be held. Shell also suggested that the question of whether or not there should be a public inquiry should be addressed by the ERCB. Having consideration for the fact that the ERCB is the successor to EUB and that the ERCB is the author of the pipeline investigation report, the EUB has referred the requests for an inquiry to the ERCB so that it may consider whether or not to hold a public inquiry into the Shell Waterton gathering system.

With the referral of the decision of a possible ERCB public inquiry, this EUB Board panel then considered the viability of

- continuing its deliberations using the existing information,
- reopening the hearing, or
- starting a new hearing,

having regard for the content of the investigation report, the parties' comments, the need to update studies and data due to the passage of time, and changes to regulatory requirements since the closing of the hearing.

4.1 Views of Shell

Shell submitted that there was no merit in reopening the hearing and respectfully requested that the Board approve the applications. Shell argued that the cause of the pipeline incident related to factors linked to the specific construction and operational history of the failed pipeline, which were not applicable to the proposed pipeline. Shell stated that there were no findings from the pipeline investigation report that would cause Shell to amend the applications.

Shell submitted that the pipeline investigation report had two key findings, neither of which would be applicable to the proposed pipeline. First, the failed pipeline was originally constructed and operated with a Rilsan liner. Shell pointed out that the proposed pipeline would not be constructed or operated with a Rilsan liner. Second, methanol was used in the pipeline for hydrate control and to flush the annular vent system. The annulus of the proposed well would not be exposed to high concentrations of methanol, since its operation would not involve the use of methanol on a continuous basis for hydrate control, nor would methanol be used to flush the annular vent system. Therefore, Shell stated that the construction and operational factors that led to the pipeline incident were not applicable to the proposed pipeline.

4.2 Views of the Interveners

FOMB stated that it had little appetite for reopening the hearing and believed that the Board should deny the applications and that the ERCB should convene a public inquiry into the Shell Waterton gathering system. It pointed out that if the Board were to reopen the hearing, there would likely be many practical difficulties in terms of who would be able to participate at the hearing, given the pipeline incident, and maintaining the continuity of the panel and staff, given the transition from the EUB to the ERCB.

CCWC submitted that the ERCB should convene a public inquiry into the Shell Waterton gathering system, while reserving judgement on the subject applications. It stated that once such an inquiry had been completed, the Board would be in a better position to make a fair and responsible judgement with respect to the subject applications.

S. Salonen submitted that the ERCB should convene a public inquiry into the Shell Waterton gathering system and deny the subject applications.

Three other interested parties that did not participate in the hearing filed submissions. Two submitted that the ERCB should convene a public inquiry into the Shell Waterton gathering system, while one suggested that the hearing should be reopened and did not express an opinion on the ERCB convening a public inquiry.

4.3 Views of the Board

In deliberating on the next steps, the Board first considered ruling on the well application separately from the pipeline and other applications. However, this was not considered a viable option, as in-line pipeline testing was an integral part of the well application. Therefore, the Board believes that all applications must be linked in its decision on how to deal with the pipeline investigation report and how to proceed using one of the options listed above.

In considering the pipeline investigation report as it applies to the proposed pipeline, the Board agrees with the argument put forward by Shell that the cause of the failure does not directly relate to the proposed pipeline, as a Rilsan liner will not be used. However, the pipeline investigation report includes a discussion of corrodents present in the annulus from a number of sources, including formic acid, used for well stimulation, and the impact of methanol on the liner, but does not address the ongoing operations and monitoring of the pipeline. In particular, the Board has not been provided with details as they apply to the proposed pipeline on the installation of the liner and how corrodents present in the annulus will be addressed or on how the use of methanol, however limited, will affect the liner. In addition, the potential for plugging of the annulus vents and monitoring the annulus were not sufficiently addressed in the material provided for the subject applications. Of particular concern to the panel is that sufficient details have not been provided on how Shell will operate and monitor the steel casing, liner, and annulus over time to ensure the integrity of the proposed pipeline. The panel did not have access to Shell's incident report to determine if some details on the above were provided.

Also, given the delay in the availability of the pipeline investigation report and the consequent delay in issuing a decision, a significant amount of time has passed. During this time, there have been subsequent changes to the Board and its application requirements. Specifically, the following have changed:

- The EUB has been replaced with the ERCB. If the Board were to grant a reopening of the hearing, rather than calling for a new hearing, the reopened hearing would have to continue as an EUB proceeding,
- ERCB *Directive 056: Energy Development Applications and Schedules*, new sour gas planning and proliferation requirements, and
- ERCB *Directive 071: Emergency Preparedness and Response Requirements for the Petroleum Industry*, new ERCB modelling and emergency response planning requirements.

The Board has concluded that further information needs to be submitted by Shell to have its applications considered and that the submission of this information would result in a need to reopen the hearing. At a minimum, new information is required to address the new requirements and issues of pipeline integrity and public safety. Having regard for the Board's determination that further submissions are required and that such information would result in a reopening of the

hearing, the critical question to this panel is whether the matter should continue as an EUB proceeding with the existing panel or whether the circumstances warrant a denial without prejudice, leaving Shell with the option of applying for approval from the ERCB. In addressing this question, the panel considered the merits of preserving the value and considerable effort that has gone into the current review process and what prejudice might result from a decision to deny the current applications. The panel also considered what the effect of the response by the ERCB to the requests for an inquiry may be on further consideration of the subject applications. In the Board's view, should the ERCB choose to proceed with an inquiry, the Shell applications may have to be deferred pending the outcome of the inquiry, dependent on the inquiry terms of reference. Should the ERCB decline to conduct an inquiry, the panel believes that considerable new hearing time would be required to hear submissions related to the pipeline failure and the relationship, if any, that that incident may have to the subject applications. In either case, the Board panel believes that any further consideration of Shell's applications should not continue as an EUB proceeding.

Considering the uncertainties related to the timing of the reopening of a hearing, the passage of time since the conclusion of the hearing in 2007, the requirement to have additional submissions, the potential for an ERCB inquiry that could specify terms of reference relevant to the applications, and the winding-up of the EUB, the panel finds that any further consideration of the proposed development should be brought before the ERCB through new applications.

The Board denies the applications without prejudice for Shell to reapply in the future to the ERCB.

Dated in Calgary, Alberta, on December 16, 2008.

ALBERTA ENERGY AND UTILITIES BOARD

<Original signed by>

T. M. McGee
Presiding Member

<Original signed by>

W. G. Remmer, P.Eng.
Acting Board Member

APPENDIX 1 HEARING PARTICIPANTS

Principals and Representatives (Abbreviations used in report)

Witnesses

Shell Canada Limited (Shell)
B. Gilmour
D. K. Naffin

R. Creasey, P.Biol., of
Shell
A. Dunlop, of
Shell
R. Harris, of
Shell
N. Wiens, P.Geoph., of
Shell
D. B. Davies, of
Intrinsic Environmental Sciences Inc.
N. A. Roe, P.Biol., of
Nicholas Roe & Associates Ltd.
W. A. J. Springer, P.Eng., of
Jacques Whitford AXYS Ltd.

Friends of Mount Backus
J. Hope-Ross

B. L. Horejsi
K. H. Kilburn, of
Neuro-Test, Inc.
D. W. Mayhood, of
Freshwater Research Limited
A. L. Norman, of
University of Calgary
L. Fabre
J. Fabre
M. Judd
S. Judd
K. Kelly
J. Kelly
T. Latham
B. Orich
E. Voth
K. Williams
D. Zoeller

Castle-Crown Wilderness Coalition (CCWC)
J. Huntley

J. Huntley
W. Ryan
J. Tweedie

Ms. Stephanie Salonen
M. Sawyer

(continued)

Alberta Energy and Utilities Board staff

W. Kennedy, Board Counsel

S. Salonen

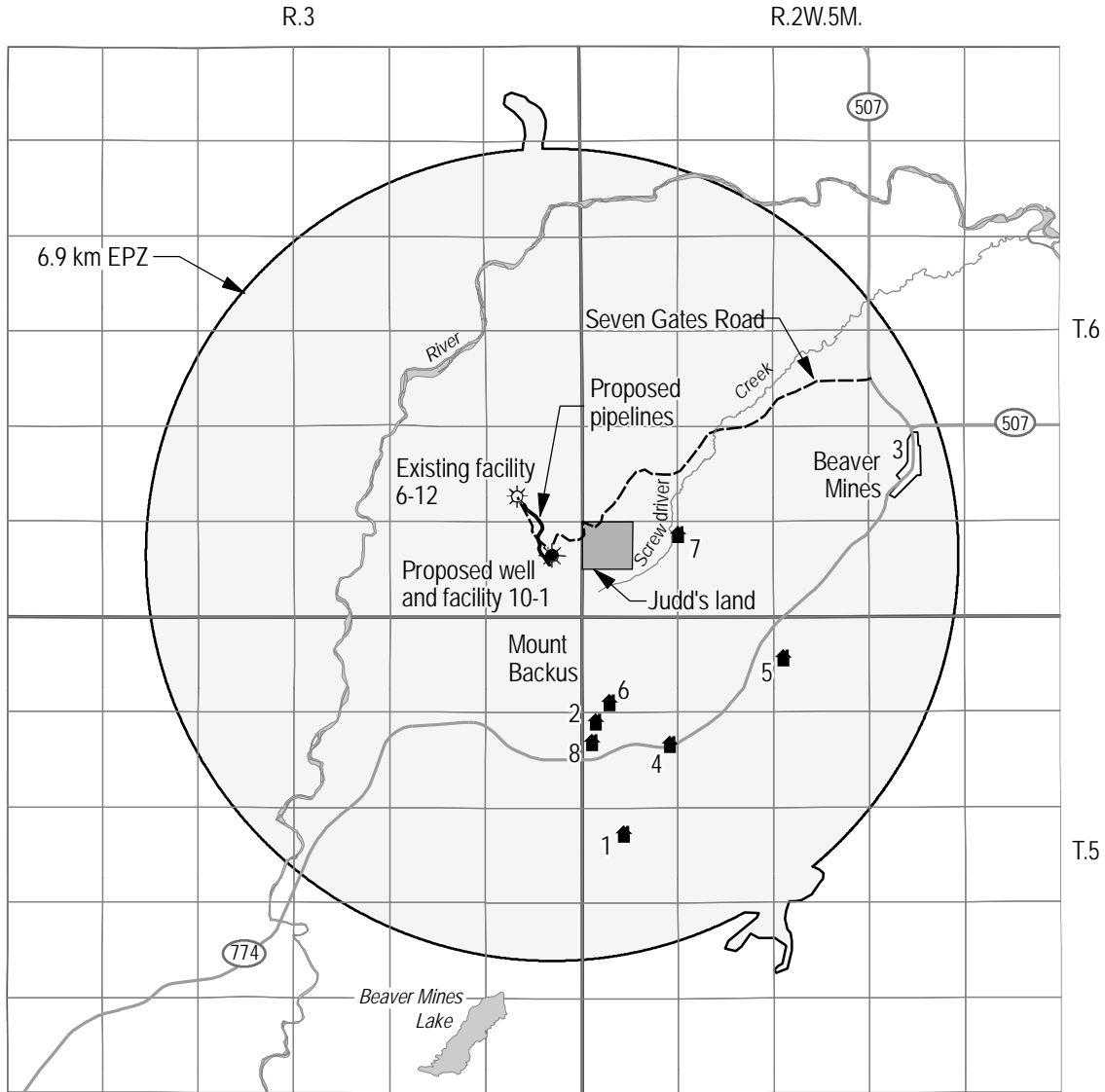
J. Smith

K. Clayton

K. Siriunas

S. Cartwright

P. Didow



Legend

🏠 Residence

Hearing participants:

- | | |
|------------|--------------|
| 1 - Fabre | 5 - McDowall |
| 2 - Fisher | 6 - Petersen |
| 3 - Kelly | 7 - Salonen |
| 4 - Latham | 8 - Voth |

Figure 1. Map of Shell's proposed well site, pipeline, and associated facilities