



West Energy Ltd.

Board-Initiated Review Hearing Regarding *Decision 2007-061*
Pembina Field

May 20, 2008

ALBERTA ENERGY AND UTILITIES BOARD

Decision 2008-040: West Energy Ltd., Board-Initiated Review Hearing Regarding
Decision 2007-061, Pembina Field

May 20, 2008

Published by

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ALBERTA ENERGY AND UTILITIES BOARD**Calgary Alberta****WEST ENERGY LTD.
BOARD-INITIATED REVIEW HEARING
REGARDING DECISION 2007-061
PEMBINA FIELD****Decision 2008-040
Proceeding No. 1545126**

1 DECISION

Having carefully considered all of the evidence, the Alberta Energy and Utilities Board (EUB/Board) hereby directs that *Decision 2007-061* remain unchanged and directs West Energy Ltd. (West) to meet its commitment and condition in *Decision 2007-061* regarding the original road.

2 BACKGROUND

In 2006, West applied to the EUB for licences to drill two sour crude oil wells from a common surface location at Legal Subdivision 4, Section 1, Township 50, Range 7, West of the 5th Meridian. The wells were expected to have a drilling emergency planning zone (EPZ) of 4.29 kilometres, which would encompass a large number of residences, some located east of the wells within a river valley.

A number of residents within the EPZ formed a group called the Rocky Rapids Concerned Citizens (RRCC) and expressed concerns about the proposed wells, including emergency response planning, in that the only egress out of the EPZ for people east of the proposed wells was past the proposed well site. The RRCC was opposed to the wells. Brazeau County (the County) also expressed concerns and was opposed to the wells.

Given the concerns expressed by those parties residing in the EPZ, a division¹ of the EUB held a public hearing that commenced on March 26, 2007. During the hearing, West stated that it believed that one egress road out of the EPZ was sufficient along Range Road 500. However, to address the RRCC's concerns, West committed to construct an additional egress road out of the river valley (the original road). West submitted an exhibit listing a number of commitments, including "in the event the applied-for wells are licensed, West Energy will construct a permanent egress route."

After carefully considering all of the evidence, the Board conditionally approved the wells in *Decision 2007-061*. The conditions placed on the approvals included a number of emergency response planning measures that were required to be completed prior to licensing of the wells and drilling into the critical sour zone. One of the conditions was that the new egress road

¹ The panel assigned to the March 26, 2007, proceeding consisted of Presiding Board Member A. J. Berg, P.Eng., and Acting Board Members W. G. Remmer, P.Eng., and J. G. Gilmour, LLB.

committed to by West must be constructed prior to commencement of drilling the first well. The exhibit listing all of West's commitments was attached to *Decision 2007-061* as Appendix 3.

On September 24, 2007, Behr Energy Services Ltd., on behalf of West, submitted a letter to the EUB proposing a different route than the original road referred to in *Decision 2007-061*. The Board requested a further explanation from West as to why it was proposing a new route.

On September 28, 2007, West submitted that it entered into a road construction agreement in October 2006 with the County to construct the original road to county specifications. Subsequently, in January 2007, West signed an amended agreement with the County for the original road to reflect that after construction of the original road, the County would maintain it. West stated that at the time of signing, it was not aware that the road specifications in the agreement had changed. West explained that in early September 2007, when preparing to construct the original road, West realized that the new specifications would require an additional easement from Alberta Sustainable Resource Development to be able to construct the road to the amended county standards. West stated that it was told by the County that approval of the easement would take about six months. West explained that it started to explore other routing options for the road, as the six-month delay would prevent West from drilling the wells in the fall of 2007.

During the course of its emergency response planning reconsultation (conducted after the hearing), West identified an alternative egress route that would traverse private lands (the updated road). West submitted that the updated road would use existing Signalta Resources Limited and Penn West Petroleum Ltd. (Penn West) access roads, which would be upgraded and joined with a new portion constructed by West. In September 2007, West decided to enter into agreements with the appropriate parties to construct the updated road.

The EUB contacted the intervening parties to the original hearing, the RRCC, and the County to determine whether they had concerns about the updated road. The RRCC expressed concerns primarily related to safety. Accordingly, the Board decided to initiate a review hearing. On October 15, 2007, the Board was informed by West that the updated road had been constructed.

3 BOARD-INITIATED REVIEW HEARING

Under Section 39 of the *Energy Resources Conservation Act*, the Board may review, rescind, change, alter, or vary an order or direction made by it. Given the change in circumstance with regard to the original road and the RRCC's concerns, the Board initiated a proceeding to consider the proposed updated road. See Figure 1 for a map of the original and updated roads and the general area.

The Board initially scheduled a public review hearing to be held in Drayton Valley, Alberta, on December 18, 2007. On November 23, 2007, the EUB received a request for rescheduling of the hearing from West and granted the request.

The Board panel and staff conducted a site visit on March 3, 2008, to view the general area identified in Figure 1.

The Board held a public review hearing in Drayton Valley, from March 4 to 6, 2008, before Presiding Board Member J. D. Dilay, P.Eng., Board Member G. J. Miller, and Acting Board Member J. G. Gilmour, LLB.

At the commencement of the hearing, the RRCC requested that the Board panel, EUB staff, and hearing participants drive the updated road. The Board granted the request, and on March 4, 2008, the Board and staff drove the updated road, followed in separate vehicles by West and some of the members of the RRCC.

Terry Fleming, the Director of Public Works and Transportation with the County, attended the hearing to answer questions regarding the County's standards, identified in the October 2006 road agreement and in the amended January 2007 agreement, as they related to the original road. The County did not file a submission to the review hearing; however, a summary of Mr. Fleming's responses are contained in this decision.

Those who appeared at the hearing are listed in Appendix 1.

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 Board would complete the proceeding. In this case, the Notice of Hearing was issued on November 13, 2007; therefore, this hearing was continued as an EUB hearing.

4 ISSUES

The Board considers the issues respecting the egress route to be safety as it relates to

- physical route differentiation of the roads,
- private versus public nature of the roads, and
- construction and design standards of the roads.

In reaching the determinations in this decision, the Board has considered all relevant materials constituting the record of this proceeding, including the evidence and argument provided by each party. Accordingly, references in this decision to specific parts of the record are intended to assist the reader in understanding the Board's reasoning relating to a particular matter and should not be taken as an indication that the Board did not consider all relevant portions of the record with respect to that matter.

5 VIEWS OF WEST

West stated that in the original proceeding it had submitted that there was no need for an additional egress road out of the river valley, as emergency evacuation could be properly completed using Range Road 500. However, West explained that it had committed to constructing the original road based on the concerns of the area residents.

West described the history of road agreements it had signed with the County to construct an additional egress road out of the river valley. West stated that on October 18, 2006, it had signed

an agreement with the County to construct the original road. West explained that subsequently the County approached West and requested that the agreement be amended to allow for the County to be responsible for maintenance of the road. On January 26, 2007, West signed an amended road agreement with the County. West emphasized that at the time that it signed the amendment, it was aware of only the change regarding maintenance and not the changes respecting construction standards. West stated that during the original proceeding, it had discovered that there were considerable differences in the agreements respecting the specifications of the original road. However, West had believed that the County would have only made West sign an agreement that it could complete and therefore committed to constructing the original road even though the specifications had changed.

West said that the conditions that the Board had imposed in *Decision 2007-061*, such as updating its emergency response plan and construction of the original road, involved a great deal of time and resources. West argued that it took these conditions seriously and immediately began work to complete the conditions. In early September 2007, West determined that due to a combination of road specifications, physical conditions, and existing easement along the original road, it would not be able to construct the original road in time to meet its commitment to the community that it would not drill during the winter. West explained that although it had advised the Board that it would not start work until a decision was made on whether the updated road was acceptable, it constructed the updated road commencing on about October 8, 2007. In addition to its timing constraints, West had made a corporate decision to spend its exploration budget on this project. West argued that if the road was not constructed in October, it could not meet its timing commitment.

West believed that one of the reasons the Board imposed a condition respecting the original road was to provide for safety of the residents, the public, and transients. West argued that the updated road would serve the same purpose as the original road. It added that the differences between the two roads would not materially affect the ability of the updated road to meet the intended purpose to provide additional egress out of the river valley. West categorized the three main differences between the original and updated roads as the physical routing, the public versus private nature of the roads, and construction and design standards.

West submitted that the original road would lead in a northeasterly direction to connect with Township Road 502. West said that the updated road led in a southwest and westerly direction to connect with Range Road 71. West argued that regardless of the direction that the two roads led, both started near the same point, offered egress out of the river valley, and permitted travel out of the EPZ.

West noted that the RRCC believed that the updated road led toward the well site. However, West argued that while a small portion of the road led toward the wells, the updated route was more than 1.5 miles from the proposed well site. West also stated that since evacuation would occur prior to gas reaching the surface, wind direction and proximity to the well site should not be factors in deciding egress. However, West stated that if evacuation were necessary, residents east of the wells would be notified of the wind direction so they could choose to egress on the updated road or Range Road 500.

Regarding the public versus private nature of the roads, West acknowledged that this difference raised concerns about access and maintenance but assured the Board that it had practices in place to address these issues.

West said that it had a maintenance plan developed by its consultant, Stantec Consulting Ltd. West stated that four to six weeks prior to use of the updated road, it would inspect the entire road and initiate maintenance as required. This inspection cycle would be repeated one week prior to sour operations. West explained that it would continually monitor the condition of the updated road during sour operations and perform maintenance as required by the maintenance plan. West argued that this maintenance plan would ensure that the updated road would likely be in the same or better condition than the original road if it were required for egress purposes. West said that it did not have the maintenance plan finalized with Penn West, the owner of portions of the updated road.

West acknowledged that the updated road had four locked gates. West committed to having dedicated emergency response personnel at both ends of the updated route 24 hours per day during sour drilling and completion operations. West testified that these personnel would have keys to open the locked gates at a level-1 emergency,² as voluntary evacuation would be initiated during a level-1 emergency. West confirmed that a rover coordinator would routinely travel and inspect the road several times a day while drilling in the sour zone and would also carry keys to the locks on the gates.

West noted that the differences between the October 2006 and January 2007 agreements made the original road impractical from the perspective of construction and design standards. West submitted that the differences in the agreements required West to build a wider road that required the acquisition of a larger right-of-way with fencing and building it to a lesser gradient. West argued that these differences created a number of problems. It explained that the original road would have required consent of the grazing leaseholder, who had expressed concerns about fencing causing a division of his grazing lease. It also would have required the acquisition of an additional easement from Sustainable Resource Development. West stated that an approval for the additional easement could take six months, which would not allow it to meet its timing commitments and constraints.

West explained that the updated road was actually two Penn West well site access roads that were joined by a new road constructed by West. West stated that it had constructed the new portion to the County standards set out in the October 2006 agreement and explained that the existing portions of the road had been upgraded to ensure that they were safe for travel. West claimed that the entire updated road was a minimum of 6.5 metres (m) wide, but that the 12 per cent grade of the road did not meet the County standards of 7 per cent, as defined in the January 2007 agreement. In response to the RRCC's concerns that the updated road might be impassable if Penn West were servicing one of its wells during an evacuation, West noted that the closest pump jack was about 29 feet from the road. Furthermore, West believed that Penn West would

² In accordance with *Directive 071: Emergency Preparedness and Response Requirements for the Upstream Petroleum Industry, June 2003, Incorporating Errata to April 2005*, in a level-1 emergency, immediate control of the hazard becomes progressively more complex because of deteriorating conditions. In this instance there will be no expectation of a gas release at a level-1 emergency.

not service its wells if West required the updated road for egress. West acknowledged that there were two 90 degree turns at the top of the hill along the updated road, but stated that these did not pose a problem for safe travel along the road.

West said that the current slope of the hill where the original road would be was 11 per cent. West argued that it would take a considerable amount of time and financial resources to construct a road with a grade of 7 per cent, as required for a public County road in the January 2007 agreement. Furthermore, West explained that there were a number of issues with surface water, erosion, and grazing leaseholder concerns that made it difficult and more expensive to construct the original road. West argued that the updated road did not have these problems and allowed West to meet its timing and financial commitments.

West explained that its transportation expert reviewed the construction and design of the updated road. It submitted that although the updated road did not meet County standards, the road met and/or exceeded Alberta Infrastructure and Transportation standards and was therefore capable of serving as an additional egress road in the event of an emergency. When asked about the free-roaming cattle on the updated road, West stated that cattle were free roaming on secondary highways in other parts of the province and it did not consider this an issue in this case.

In conclusion, West argued that the updated route met the intent of the commitment and condition outlined in *Decision 2007-061* and requested that the Board vary its previous decision to incorporate the updated road in place of the original road.

6 VIEWS OF THE RRCC

The RRCC asserted that West's argument regarding timing constraints did not provide valid reasons for failing to construct the original road. The RRCC noted that not only the January 2007 agreement required an additional easement; so did the October 2006 agreement. The RRCC argued that West should have known in October 2006 that the current easement on the original road was not wide enough to construct the road to County standards.

The RRCC also commented on West's December 21, 2007, self-imposed deadline to drill the wells. The RRCC questioned why West would wait until August 2007 to start working on the original road when it had made the commitment in March 2007. Overall, the RRCC believed that West's argument that timelines were a factor in deciding to build the updated road was no longer an issue for the Board to consider, as the timeline had passed.

The RRCC agreed with West that one of the reasons the Board had conditioned its approval to require the original road was to provide for safety of the residents, the public, and transients. However, the RRCC argued that the updated road would not serve the same purpose as the original road. The RRCC expressed a number of concerns about the updated road as opposed to the original road related to routing, the public versus private nature of the roads, and construction and design standards. The RRCC argued that the updated road was inferior and did not provide for safe egress for the members of the RRCC, which the original road would have done.

The RRCC explained that the updated road was oriented toward the wells, whereas the original road would allow for egress to the north, away from the wells. It submitted that once someone exited the original road, there would be more options for egress away from the wells.

The RRCC expressed concerns that the updated route would be a private road and that it was not clear from the agreements between West, the landowner, and Penn West whether the public was allowed to use the road for egress purposes. The RRCC also pointed out that a maintenance plan had not been finalized with Penn West. It indicated that there were no guarantees that maintenance would be properly completed on the updated road and stated that it was more inclined to trust the County's maintenance policy for the original route. The RRCC also stated that when and how the gates would be unlocked was unclear and that it was not confident that the gates would be unlocked even if a clear plan was in place.

The RRCC pointed out that the original road would not have locked gates and would have a regular maintenance program. It also specified that, unlike the updated road, the original road would be fenced to prevent cattle from crossing or gathering on the road. The RRCC stated that during the site visit, it was clear that there were two pathways that traversed the updated route where cattle appeared to regularly cross the updated road. It also believed that cattle may knock down the road signs, causing another hazard.

The RRCC argued that the original road was safer and more reliable, as it would be permanent and designed to County standards. The RRCC noted that West submitted that a portion of the updated road was built to County standards, in accordance with the October 2006 agreement. The RRCC asserted that these standards were for a temporary lease road, not a permanent public road, as stipulated in the January 2007 agreement. The RRCC argued that the width of the updated road would only be 6.5 m, whereas the original road would be 8 m. The RRCC argued that the updated route was too narrow to allow for two-way traffic and would be impassable if a vehicle were stuck on the road. The RRCC also questioned whether the updated road would be passable if Penn West were servicing one of its wells along the road.

The RRCC also expressed concerns about the grade of the updated road. It emphasized that the County standard for a public road was a maximum grade of 7 per cent. The RRCC pointed out that the grade of the updated road was greater than 12 per cent. It stated that the steep slope would be impossible to navigate safely if it became wet or snow covered. It also explained that during the site visit, West allowed only one vehicle at a time to travel on the steep slope. It emphasized that this action did not instill confidence in the safety of the updated road.

Mr. and Mrs. Schmidt, members of the RRCC, explained that they would need to be able to get their horses out quickly and safely in horse trailers, as they operated a horse-training facility in the area. They argued that horse trailers would not be able to negotiate the steep grade or the 90 degree turns at the top of the slope of the updated road. They also explained that if they were on horseback in the event of an evacuation, the horses might react adversely to the cattle guards on the updated road.

The RRCC explained that three school bus routes travelled east into or near the river valley and would require alternative egress in case of an emergency. The RRCC asserted that school buses would also not be able to climb the steep slope of the updated road.

The RRCC summarized that West's self-imposed timelines to drill the wells by December 21, 2007, should not have affected West's commitment to construct a permanent egress road along the original route. It asserted that the RRCC was entitled to an egress road that could be safely used under all weather conditions. Therefore, the RRCC requested that the Board not vary *Decision 2007-061* to incorporate the updated road.

7 SUMMARY OF MR. FLEMING'S RESPONSE

Mr. Fleming described his discussions with West at the time the October 2006 and January 2007 agreements were signed. Mr. Fleming stated that the County understood the October agreement to be for egress for oil company use, not a public road. Therefore, the October 2006 agreement required the road to be built to lease road specifications. Mr. Fleming stated that the County and West specifically discussed the County's requirement that West would need to obtain consent from the grazing leaseholder to be able to submit a request to Sustainable Resource Development for the additional easement.

Contrary to the testimony of West, Mr. Fleming stated that West approached the County in early November 2006 to ask if the County would take over maintenance of the original road. The County deliberated and determined that it would be an advantage to take over the original road, as it would allow access to gravel sources and a shortcut to Township Road 502. Mr. Fleming stated that in November 2006, the County and West had another discussion about requiring an additional easement that could take up to six months to obtain. Mr. Fleming explained that in January 2007, the County and West signed another road agreement whereby the original road would be a permanent public road and the County would be responsible for maintenance and repairs. Mr. Fleming added that the County indicated that if West chose to build the original road, it would have to be built to County standards, as outlined in the January 2007 agreement; otherwise the County would not take the road over. Mr. Fleming stated that if the road were built to the January 2007 specifications, the original road would be safe for public travel. Mr. Fleming explained that discussions were also held with West regarding the additional cost associated with the original road.

Mr. Fleming agreed that the original road would be difficult to build, as there would be geotechnical problems, concerns about erosion, and significant lengthening of the hill to meet the 7 per cent grade requirement. Overall, Mr. Fleming believed that although the original road would also be expensive to construct, it could still be built to the County standards identified in the January 2007 agreement.

8 VIEWS OF THE BOARD

The Board believes that a restatement of the commitment and condition relating to the original road as described in *Decision 2007-061* is necessary, as it was the focus of the review hearing. *Decision 2007-061* states that West committed to "construct an additional permanent egress route." In addition, the Board added the condition that "the new egress road must be constructed prior to the commencement of the drilling of the first well." The Board notes that the panel in the original hearing accepted the original road, without consideration of alternatives, as the original road had already been offered by West as a commitment. Furthermore, the Board notes that *Directive 071: Emergency Preparedness and Response Requirements for the Upstream Petroleum Industry June 2003, Incorporating Errata April 2005*, does not specify the number of egress roads required for evacuation out of an EPZ, nor does it specify that egress must be away from the well site.

The Board would also like to comment on West's evidence that it could not meet its commitment to drill the wells prior to December 21, 2007. The Board notes that the commitment made in *Decision 2007-061* was that "West Energy will not drill the wells in the winter season

(December 21, 2007, through spring break-up). In the event that West Energy is unable to drill the wells in the fall of 2007, West Energy will consult with the community as to the revised drilling schedule.” The Board believes that given the wording of the commitment, West could have opted to drill the wells after spring breakup in 2008.

In addition, the Board notes that the October 2006 agreement required a grade of 8 per cent, whereas the January 2007 agreement required a grade of 7 per cent along the original road. The Board notes that both agreements stated that an additional easement may be required to construct the road to the grade required. The Board does not believe the difference in grade is significant enough to warrant not constructing the original road and believes that West should have explored the need for the additional easement earlier in the process, given that it was aware that one may have been required by the October 2006 agreement.

In determining whether *Decision 2007-061* should be varied to incorporate the updated road, the primary consideration for the Board is the safety of the public that may choose to use the road to egress from the river valley and other areas east of the proposed wells in the event of an emergency. Public safety was of paramount importance to the Board, as it weighed the evidence and submissions relating to the original and updated roads.

In arriving at a decision in this matter, the Board considered the differences between the original and updated roads to determine which of the roads would better provide for public safety. The Board notes that the differences relate to physical route differentiation, the private versus public nature of the roads, and construction and design standards.

With respect to construction and design standards, the Board notes that portions of the updated road are narrower and steeper than the original road would have been. The updated road is a minimum of 6.5 m wide, whereas the original road would require a minimum width of 8 m to meet County standards. In addition, the updated road has a gradient of about 12 per cent on its western end, significantly greater than the original road, which would have had a maximum grade of 7 per cent. The Board finds that the original road would be wider and less steep and therefore would be better for use by the public in the event of an emergency.

In addition, the Board travelled the updated road during one of its site visits. The Board heard evidence that school buses travel on Range Road 500 and Range Road 70, east of the proposed wells. The Board also heard evidence about the use of horse trailers on the Schmidt property and that horses react adversely to cattle guards, which exist on the updated road. Having travelled the updated road and on the basis of the evidence, the Board is not convinced that rear-wheel-drive vehicles, school buses, and vehicles pulling loaded horse trailers would be able to use the updated road to egress from the area due to its significantly greater slope. The Board is also concerned that given the narrowness of the updated road, it may become impassable if a vehicle were stuck. The Board finds that the updated road does not provide for public safety in the event of an emergency.

In addition, the Board heard evidence that cattle can be present on the updated road. The Board is concerned that their presence could interfere with the use of the road, whereas this would not be the case with the original road, given that it would be required to be fenced. In this regard, the Board finds that the original road would be more protective of public safety.

As a result of all of the above, the Board concludes that the updated road provides a lesser degree of safety for the public than would be provided by the original road.

Having reached its conclusion on the basis of safety, the Board does not consider it necessary to make findings regarding the other differences between the two roads. Accordingly, the Board directs that *Decision 2007-061* remain unchanged and directs that West meet its commitment and condition in that decision regarding construction of the original road.

Dated in Calgary, Alberta, on May 20, 2008.

ALBERTA ENERGY AND UTILITIES BOARD

<original signed by>

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

<original signed by>

G. J. Miller
Board Member

<original signed by>

J. G. Gilmour, LLB
Acting Board Member

APPENDIX 1 HEARING PARTICIPANTS

**Principals and Representatives
(Abbreviations used in report)****Witnesses**

West Energy Ltd. (West)
D. Langen

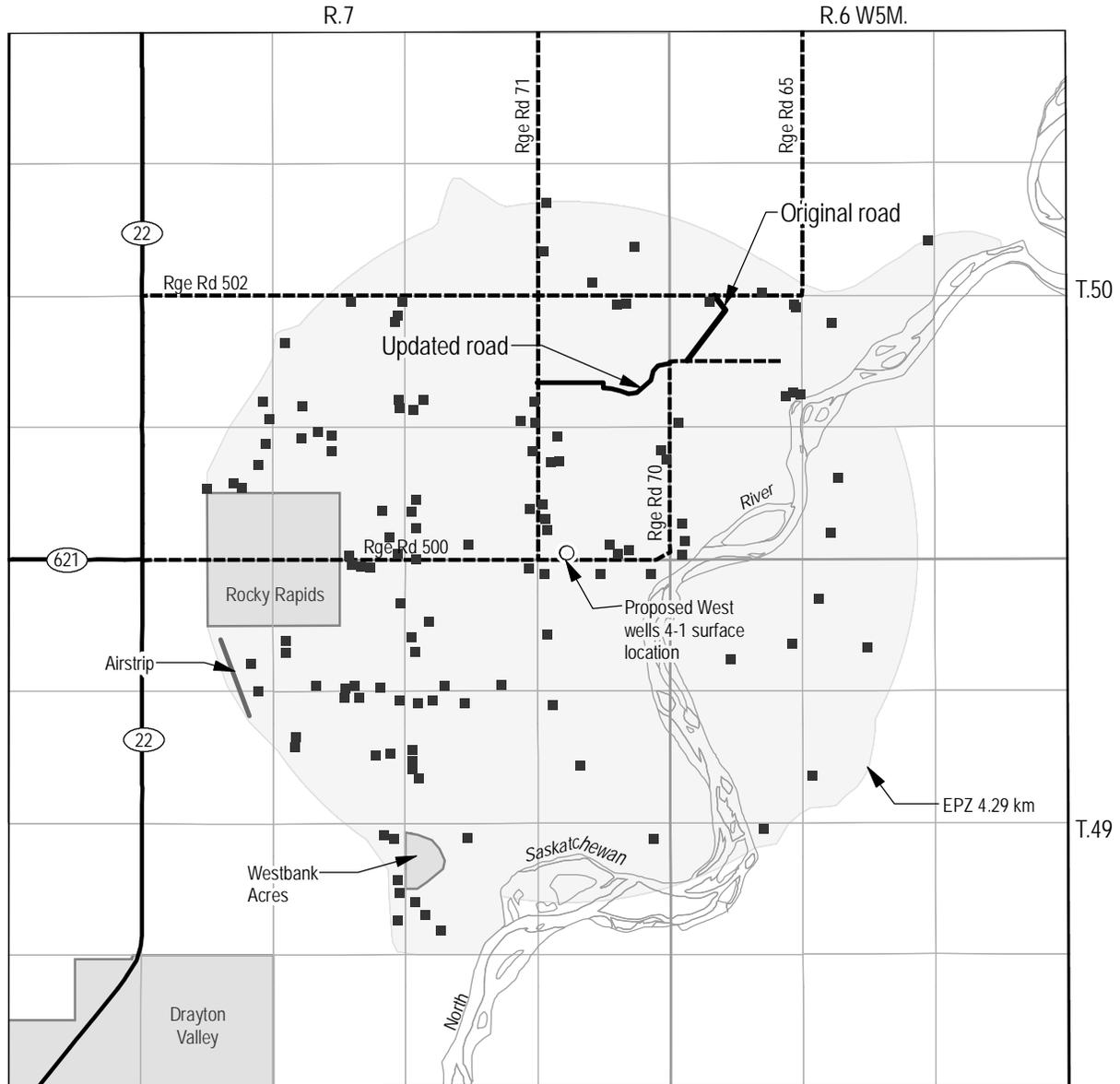
K. McCagherty, P.Eng.,
of West
S. B. Schinnour,
of Behr Energy Services Ltd.
K. Smith, P.Eng.,
of Stantec Consulting Ltd.

Rocky Rapids Concerned Citizens (the RRCC)
J. J. Klimek
D. Bishop

D. Schmidt and D. Schmidt
T. Dingwall
B. Dodd and C. Dodd
R. J. Kiehlbauch
L. Duperron
G. Mastre and L. Mastre
E. Belva
S. Kelly
R. Mulligan
S. Dusterhoff
D. McCutcheon, P.Eng.,
of the University of Alberta

Brazeau County
T. Fleming

Alberta Energy and Utilities Board staff
G. Bentivegna, Board Counsel
D. Burns
J. Smith
W. A. Jones
K. Clayton
D. Schroeder
J. Schlager



Legend

- Residences

Notes:

This figure is provided for illustrative purposes only.
 This figure was created from West's ERP area map dated November 11, 2006.

Figure 1. Area map