



EOG Resources Canada Inc.

Application for a Licence for a Natural Gas Well
Jumping Pound West

October 19, 2004

ALBERTA ENERGY AND UTILITIES BOARD

Decision 2004-090: EOG Resources Canada Inc., Application for a
Licence for a Natural Gas Well

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ALBERTA ENERGY AND UTILITIES BOARD

Calgary Alberta

EOG RESOURCES CANADA INC. APPLICATION FOR A LICENCE FOR A NATURAL GAS WELL JUMPING POUND WEST

Decision 2004-090
Application No. 1327299

1 DECISION

Having carefully considered all of the evidence, the Alberta Energy and Utilities Board (EUB/Board) hereby approves Application No. 1327299 subject to the conditions outlined in [Appendix 2](#).

2 INTRODUCTION

2.1 Applications

On January 7, 2004, EOG Resources Canada Inc. (EOG) applied to the EUB pursuant to Section 2.020 of the *Oil and Gas Conservation Regulations* for a licence to drill a well at a surface location at Legal Subdivision (LSD) 10, Section 35, Township 23, Range 5, West of the 5th Meridian. The targeted bottomhole location would be in LSD 7-2-24-5W5M (the 7-2 well). The purpose of the well would be to produce natural gas with a hydrogen sulphide (H₂S) content of 77.8 moles per kilomole and a maximum potential H₂S release rate of 0.93 cubic metres per second (m³/s). This would translate to a calculated emergency planning zone (EPZ) of 2.19 kilometres (km). In accordance with EUB requirements, EOG expanded its EPZ to include all of the Wintergreen Woods community. The modified EPZ had 77 residences. Due to the proximity of the proposed well to the Wintergreen Woods subdivision, the EUB classified this proposed well as a proximity-critical level-2 sour gas well.

2.2 Intervention

On May 23, 2004, D. and K. Deere and D. O’Nions filed objections to EOG’s well licence application. Both parties are residents of Wintergreen Woods, a subdivision within the expanded portion of the EPZ for the well. The Deeres raised concerns about the emergency response plan (ERP), air quality, safety, and property devaluation. Mr. O’Nions raised concerns about health, property devaluation, and restriction on property sale to home seekers.

On August 4, 2004, P. Cook filed an objection to EOG’s well licence application. She raised concerns regarding the ERP, inadequate notification, and health and safety.

On August 23, 2004, V. Pedenko filed an objection to EOG’s well licence application. He raised concerns regarding health and safety, well site selection, emergency response planning, and notification.

2.3 Hearing

The Board held a public hearing in Bragg Creek, Alberta, on August 31 and September 1, 2004, before Board Members J. R. Nichol, P.Eng. (Presiding Member) and T. M. McGee and Acting Board Member D. D. Waisman, C.E.T. Those who appeared at the hearing are listed in [Appendix 1](#).

Mr. Pedenko participated in the hearing by making a statement about his concerns. Mr. Copithorne, a landowner adjacent to the proposed well site, participated in the hearing by making a statement about the application and the direct impacts on landowners in the Jumping Pound region. Also, Mr. K. Beingessner, president of the Diamond 7 Ranch Ltd. (landowner adjacent to the proposed well site) and the vice-president and general manager of 808146 Alberta Ltd. (landowner of the proposed well site), participated in the hearing by making a statement as the landowner of these properties involved in the proposed well site selection process. These participants did not present evidence and were not cross-examined by the parties to the hearing.

During the hearing, a number of undertakings were requested. EOG completed the last outstanding undertaking on September 13, 2004, and the Board considers the hearing to have been closed on that date.

3 ISSUES

The Board notes that the need for the well was not at issue in this hearing. EOG submitted that it had acquired the mineral rights underlying Section 2, Township 24, Range 5, West of the 5th Meridian and that the proposed well was to be drilled to recover the minerals from the Mississippian Rundle Formation. EOG indicated that the proposed well would be located along a trend where there were already many other wells producing from the West Jumping Pound Field to the northwest. It noted there were also producing wells along the same trend located to the southeast of the proposed 7-2 well. The Board finds that the need for the well has been established.

However, the following issues were raised respecting the application:

- public consultation and site selection,
- public safety (including ERP) and air quality and emissions, and
- property values.

4 PUBLIC CONSULTATION AND SITE SELECTION

4.1 Views of the Applicant

EOG began its consultation on the proposed well by meeting with a group of 17 landowners in the Jumping Pound region in February 2003 to discuss a possible well location. In March 2003, consultation with the residents of Wintergreen Woods was initiated by inviting them to a visitor centre so they could ask questions on the proposed well site location. EOG personnel were on hand to answer questions about the proposed sour well and the EPZ for the drilling of the well. Based on these preliminary discussions and discussions with some residents in the Wintergreen

Woods subdivision who wanted to be included in the EPZ, EOG decided to include all of the residents of Wintergreen Woods in any future consultation or emergency response planning, regardless of which surface location would ultimately be chosen for the well.

While its preferred downhole target location was in LSD 7-2-24-5W5M, EOG indicated that it had some flexibility in situating the surface location. It identified four possible surface locations and held a meeting on September 4, 2003, with the landowners in the immediate vicinity of the proposed well. All parties present contributed to listing the pros and cons of the various locations, and EOG settled on the location that everyone who participated in the meeting agreed was acceptable.

The surface location in LSD 10-35-23-5W5M, as applied for, was chosen as it was the preferred surface location for the most directly affected landowners, while allowing EOG to access the downhole target using directional technology and natural drift. EOG acknowledged that it did not include the Wintergreen Woods residents in the decision on the change in the location of the well site, as it had to secure a well site that was acceptable to the landowner of the land on which the proposed well would be situated and the immediately adjacent landowners.

EOG argued that it informed the Wintergreen Woods residents shortly after the location was chosen. EOG stated that no concerns about the new proposed surface location were raised at a public meeting held in November 2003 with residents. EOG felt that the safety concerns raised by some of the residents in Wintergreen Woods were adequately addressed in the response protocols outlined in its ERP.

EOG submitted that it had complied with and exceeded the EUB's public involvement requirement for the following reasons. Between March 2003 and the present, EOG had held four open houses for area residents, conducted door-to-door visits, met personally with residents and landowners, and published update letters, keeping interested parties informed of the status of EOG's application.

EOG pointed to the mutual agreement between EOG and the Wintergreen Woods residents to engage RWDI West Inc. to conduct dispersion modelling of H₂S and sulphur dioxide (SO₂) and CanTox Environmental to conduct a health risk assessment to address the concerns of the Wintergreen Woods residents raised during the consultation. EOG also worked on the understanding that D. Stefani would be the community liaison contact. EOG referred the Board to the public consultation documents filed outlining the extent of its public consultation efforts. EOG concluded by stating that the fact that there were only a handful of interveners at the hearing demonstrated that it had conducted an effective public consultation.

4.2 Views of the Intervenors

The intervenors believed that EOG had not engaged in public consultation with the Wintergreen Woods residents in good faith, as the residents had not had an opportunity to participate in the selection of the applied-for surface location. They noted that EOG had proposed a well site location in the initial consultation of March 2003. They believed that when EOG changed the proposed well site location, the intervenors should have been consulted, especially since the adoption of this site had resulted in their inclusion within an EPZ. They felt that their inclusion in the EPZ was being forced upon them, with little or no opportunity for input. They indicated that

a surface location that resulted in Wintergreen Woods subdivision being outside the EPZ would be preferable.

In addition, the interveners argued that EOG's public consultation was not effective, as some of the residents of Wintergreen Woods were not aware of the proposal to drill a sour well in the vicinity of the subdivision, new residents had not been contacted by EOG, and some had not received notice of the hearing. The basis for the argument was that shortly before the hearing, the interveners went around the neighbourhood collecting signatures for a petition against the approval of the subject well. They reported that 31 of the 34 households they spoke to signed their petition, indicating that they opposed the drilling of the well and that they fully supported Messrs Deere and O'Nions' intervention to have the well licence application denied.

Mr. Deere questioned who had nominated Mr. Stefani as the Wintergreen Woods representative, as the Wintergreen Woods residents had not done so. He added that there was no community association in Wintergreen Woods to represent the interests of the residents.

In summation, the Wintergreen Woods group argued that EOG's public consultation efforts had been totally inadequate and that they were not involved in any meaningful way. They stated that the proposed well should therefore be denied.

4.3 Views of the Board

The Board finds that EOG met the requirements of *Guide 56: Energy Development Applications and Schedules* on public consultation, as it demonstrated that it had conducted an extensive consultation program to inform the persons who might be affected by the proposed well. The Board notes that EOG obtained agreement from the immediate landowners in the vicinity of the proposed surface location of the well after meeting with these landowners. However, the residents of Wintergreen Woods were not included in these discussions, although consultation had been initiated with them. While the Wintergreen Woods residents were informed of the change in the location of the proposed well site, this, in the view of the Board, does not result in the residents having an opportunity to participate in the consultation on the site selection. The Board is of the view that when an applicant initiates consultation with an individual or group of people, it would be preferable if those parties continue to be fully engaged throughout the remainder of the consultation process. Notwithstanding the fact that EOG decided to only involve the immediately adjacent landowners in the final selection of the proposed well site, the Board finds that the overall public consultation program was acceptable.

The Board finds that the evidence submitted by the applicant supports the selection of the applied-for well location.

5 PUBLIC SAFETY (INCLUDING EMERGENCY RESPONSE PLAN) AND AIR QUALITY AND EMISSIONS

5.1 Views of the Applicant

EOG stated that it had developed a site-specific ERP that addressed the drilling, completion, and testing operations for the proposed 7-2 well. Its 2.19 km EPZ was based on a cumulative release rate of 0.93 m³/s. The calculated EPZ encompassed only a portion of Wintergreen Woods, but

was modified to include the entire subdivision, adhering to the requirements set out in EUB *Guide 71: Emergency Preparedness and Response Requirements for the Upstream Petroleum Industry*.

EOG explained that from the onset, using an ultraconservative approach, it had committed to include Wintergreen Woods, regardless of its geographical location in relation to the EPZ. Should the well prove to be successful, once it was on production, the EPZ would be reduced, by use of a downhole choke if necessary, removing Wintergreen Woods from the production EPZ. Further, EOG stated that the proposed well was only classified as critical due to its proximity to Wintergreen Woods and not due to the calculated sour gas (H₂S) release rate associated with the drilling program. It reported that RWDI had performed plume dispersion modelling, which had demonstrated that with a blowout at the theoretical maximum release rate and under severe weather conditions, some discomfort might be experienced but symptoms would clear rapidly. It maintained that Alberta Ambient Air Quality Guidelines (AAAQG) for SO₂ would not be exceeded.

EOG maintained that due to its extensive consultation and the input received by the landowners, a number of modifications had been made to the ERP, which it felt resulted in a better plan. Significant consultation with the Municipal District (MD) of Rockyview and the Calgary Health Region also had resulted in additional enhancements, which satisfied the MD's Director of Disaster Services. EOG stated that prior to conducting sour operations, it would ensure that the residents' information was updated and kept as current as possible. As well, all residents would be notified 72 hours prior to EOG entering the sour zone. EOG committed not to enter the sour zone and/or to suspend operations should the roads be impassable or if any situation existed that would complicate the evacuation of the EPZ.

EOG stated that evacuation of the EPZ would be initiated no later than a level-2 emergency, prior to any release of H₂S, with a precautionary voluntary evacuation being offered to the public at a level-1 alert. During the drilling, completion, and testing of the sour zone, two rovers would scout the area day and night. As well, one rover and a public safety supervisor would be stationed in the parking lot of the Wintergreen Golf Club every day from 5:00 to 6:00 p.m. to allow the residents to become familiar with the rovers, who might knock at their doors to request an evacuation. This would also provide an opportunity for parents to familiarize their children with evacuation and rover personnel.

EOG referred to its ERP for the evacuation protocol and stated that in the event of the implementation of the ERP, evacuation buses would be available at roadblock #4 to accommodate any residents who were uncomfortable driving independently. Residents could be shuttled by the rovers to the evacuation buses, if necessary or if requested. During any level of emergency, a rover would be stationed at the bridge on the egress route from the area to assist with directing traffic and advising the public of the emergency situation farther up the road. EOG committed to contracting a construction company during sour operations to assist with ploughing the roads, should it be necessary to do so.

EOG addressed the proposed conditions requested by the interveners in their submissions as follows. EOG believed that a 90-day notification prior to spudding the well would be unnecessary, since the initial drill would be sweet and the residents would be notified 72 hours prior to entering the sour zone.

EOG believed that it would be unnecessary to install air quality monitors at the yards of Wintergreen Woods residents. EOG further explained that a mobile air monitor would be in the area during the drilling of the sour zone and that there would be three stationary monitors and one weather/stationary monitor established in strategic locations, as illustrated on the map in [Figure 1](#), 72 hours prior to and during normal sour operations. The unit placed between Wintergreen Woods and the proposed well location would be a real-time weather station and air-monitoring unit. EOG stated that the monitoring units were capable of measuring H₂S and SO₂, with satellite feeds allowing for nonconfidential Internet access to the monitoring data by interested parties.

EOG stated that it did not support resident relocation, as its ERP allowed for early evacuation prior to any exposure of sour gas. In order to test preparedness, EOG stated that while it would not conduct an evacuation exercise, it was prepared to conduct an exercise testing its communication and response protocols.

EOG acknowledged that there were recreational users in the area and that it had procedures for locating and evacuating these transients in the event of an emergency.

5.2 Views of the Interveners

The interveners stated that they were not only concerned about the health and safety of themselves but also of the other residents in the area, and that they strongly opposed the well. They raised concerns regarding the existing single access/egress road, which could potentially be affected by extreme weather conditions; children home alone unable to evacuate; properties with locked gates; and the high level of recreational use in the area and the congestion that they believed would occur at the bridge.

The interveners questioned the need for an ERP if there was no threat to health and safety associated with this project. The interveners believed that Wintergreen Woods was unique in its topographical features, extreme weather patterns, high level of recreational use, and single access/egress route. The interveners stated that given the complexity of the ERP and the number of human resources required to enact the plan, it would not be viable without an evacuation exercise. The interveners indicated concern about the response time required by responders to arrive in the event of an incident.

The interveners stated that the road and bridge could not sustain the significant volumes of traffic that would ensue during an evacuation of the area. They expressed concerns about traffic congestion created by the evacuation and were not satisfied that EOG has any plans for traffic control or direction. They felt that evacuation would be seriously compromised by any adverse weather conditions and stated that there were many days when they could not leave their property due to heavy snowfall. The interveners recognized EOG's commitment to contract snow ploughs but felt that the snow ploughs would be unable to effectively clear the roads given the significant snowfall rate.

The interveners questioned their safety and security since there were no plans for a siren to be associated with the use of the monitoring equipment. They were concerned about air quality when involved in recreational activities outside of their homes. The interveners did not understand why EOG would not provide them with personal air quality monitors and personal breathing equipment.

The interveners believed that it would be impossible for the residents to react to the ERP effectively without having a copy of the plan from EOG. The interveners also expressed concerns about new residents who had recently moved into the area and had not yet been contacted about the proposed project.

Mrs. Deere stated that while she could choose to relocate during the drilling and completions operations, she was adamant that she would not reside in the area should the well prove to be successful and put on production.

The interveners also expressed concern about locating and evacuating recreational users from the area in the event of an emergency.

5.3 Views of the Board

The Board notes that EOG prepared a site-specific ERP for the drilling, completions, and testing of the proposed 7-2 well incorporating the entire Wintergreen Woods subdivision, most of which fell outside of the 2.19 km calculated EPZ. The Board finds that the ERP meets or exceeds the requirements of *Guide 71*. As stated in *Guide 71*, if an EPZ intersects a portion of a rural subdivision, an operator must include the entire subdivision in its EPZ. Therefore, the whole of the Wintergreen Woods subdivision must be included in the EPZ to ensure the safety of the residents in the event of an emergency.

The EUB requires that an applicant coordinate its plans with municipal and government ERPs, and in this case the Board is satisfied that EOG has taken appropriate steps to do so. The local municipal authorities have a mandated responsibility to protect the public within their areas of jurisdiction and play a key role in a licensee's emergency response. The Board notes that after significant consultation, the MD of Rockyview is satisfied with the public protection measures set out in EOG's ERP.

It is clear to the Board that the interveners remain opposed to the project and are unconvinced that any ERP would provide for public safety. The Board recognizes the interveners' concerns regarding a single access route across an unmanned bridge, but the Board does not believe that this presents a risk to the public, given the distance of the bridge from the well site and EOG's commitment to take additional traffic control measures. While it is desirable to have access to more than one egress/evacuation route, the Board concludes that more than one route is not necessary in order to provide adequate protection of the public because such a situation can be managed effectively through appropriate planning.

The Board acknowledges that the ERP contains significant enhancements that provide additional safety measures for the residents and public in the Wintergreen Woods area, such as the use of a rover stationed at the bridge, stationary monitors strategically placed throughout the planning zone, and early notification and evacuation prior to the release of any sour gas. The Board notes the interveners' concerns regarding the high level of recreational use in this area. The Board accepts that the use of rovers would be effective in regard to the public's use of the area, as explained in the ERP. The Board encourages the interveners to carefully review the ERP to gain a full understanding of the public protection measures and associated actions that will be taken to ensure an effective evacuation. Accordingly, once the plan has been updated, the Board requires EOG to supply copies of the ERP to any resident located in the EPZ who requests one. The Board notes that this is in addition to *Guide 71* requirements, which directs companies to provide

the public with information packages outlining public protection measures specific to the area in the event of an emergency.

The Board acknowledges EOG's commitment to conduct a communication exercise testing response protocols. The Board believes that it is necessary to test all procedures detailed in an ERP to ensure that responders are adequately trained, confident in their roles, and fully prepared to implement immediate response actions. However, the Board agrees that a communication and response protocol exercise will provide the necessary information to adequately test response capability for the area. EOG is directed to ensure that its test of communications and response protocols conforms to a tabletop exercise, including communications, as described in Appendix 3 of *Guide 71*.

The Board acknowledges EOG's commitments to utilize mobile and stationary air quality monitors during the drilling of the proposed 7-2 well and to ensure that Wintergreen Woods would not be within the production ERP. The Board believes that these commitments increase the safety of the Wintergreen Woods residents and expects EOG to follow through with them.

Recognizing that ERP outlines procedures for early notification and evacuation, the Board finds that it is not necessary to supply personal air quality monitors and breathing equipment to the residents within the EPZ. EOG stated that it would ensure that resident information was updated and kept as current as possible prior to spudding the well. The Board requires that EOG update the resident information and submit the revisions for review before the final ERP approval is issued.

Having regard for all of the above factors, the Board is satisfied that the proposed safety measures provide adequate protection for the public in the area. Therefore, the Board is satisfied that the well can be safely drilled, completed, and tested.

5.4 Air Quality and Emissions

5.4.1 Views of the Applicant

EOG placed in evidence plume dispersion modelling conducted by RDWI based on what it said was the unlikely event of an uncontrolled release of sour gas during the drilling of the proposed well. EOG argued that in the modelling conducted for the worst-case scenario (a well blowout at the theoretical maximum rate under worst-case weather conditions), the concentrations of H₂S at Wintergreen Woods subdivision could result in notable discomfort being experienced due to the irritant properties of sour gas, but the symptoms would clear rapidly. EOG added that modelling of an ignited long-term blowout indicated that AAAQG for SO₂ would not be exceeded in Wintergreen Woods, its access road, or other residences in the area. EOG also testified that it had done SO₂ modelling relating to the completion and testing of the well. The modelling was based on a maximum gas flow rate of 300 thousand m³ for a two-day flare test and dealt with ground-level concentrations of SO₂. EOG submitted that the SO₂ modelling results would not exceed the AAAQG in locations near residents during the completion and testing of the proposed well.

EOG also submitted in evidence a report prepared by Dr. D. B. Davies, of CanTox Environmental, addressing environmental risk assessment for the proposed well. EOG argued that the potential impacts of SO₂ on human health were unlikely because individuals were generally not responsive to SO₂ until concentrations reached 2600 micrograms per m³. Therefore,

EOG submitted that the proposed flaring would not impact the health of the residents in Wintergreen Woods, as it would be within the AAAQG.

EOG further stated that a permanent flare stack would be placed at the proposed well site, should the well be productive. The flare stack would only be used for an upset condition at the lease site and not for continuous flaring at the well. Any venting or flaring due to pipeline operations would occur at the gas plant rather than at the well lease site.

In response to the submission of the interveners regarding the recommendations relating to research on the health effects of sour gas from the *Public Safety and Sour Gas Final Report*,¹ EOG argued that it met the recommendations by conducting the dispersion modelling and a health risk assessment. It added that the Calgary Health Region did not have any concerns regarding the application.

5.4.2 Views of the Intervenors

The intervenors were concerned that their proximity to the proposed well site and the prevailing winds increased their risk of exposure to low-level H₂S and SO₂ emissions, products of incomplete combustion, and other fugitive emissions from the proposed well site. More specifically, Mr. and Mrs. Deere were concerned that, as there was a history of asthma in their family, their child might be at a higher risk if air quality in the area deteriorated as a result of the completion, testing, and production of the proposed well. Also, as active marathon runners, Mr. and Mrs. Deere were concerned that any deterioration in air quality would affect their activities and their health. Mrs. Deere submitted journal articles regarding impacts on the health of residents due to leaks and emissions from pipelines and facilities in the United States.

In addition, the intervenors cited a number of recommendations from the *Public Safety and Sour Gas Final Report* relating to the health effects of sour gas that supported their position that the well should be denied, since the studies had not yet been completed.

5.4.3 Views of the Board

The Board finds that based on the plume dispersion modelling done by RDWI (supported by the CanTox Environmental health risk assessment) of the worst-case scenario of an unignited 15-minute sour gas release, the drilling of the proposed well would not present a risk to the safety of the residents of Wintergreen Woods. The dispersion modelling and health risk assessment was completed after consultation with the residents of Wintergreen Woods. These reports were not placed in dispute by the intervenors. Also, ignition within 15 minutes of any sour gas release, as set out in the EOG ERP would produce ground-level SO₂ concentrations that would not exceed the AAAQG at Wintergreen Woods. The Board also considered the fact that EOG will monitor the air quality to ensure that the AAAQG are not exceeded, as it will have stationary and mobile air quality monitors in place 72 hours prior to and during normal sour drilling, completion, and testing operations of the proposed well.

In addition, the Board notes that if flaring during completion and testing of the well is conducted according to the dispersion modeling, the ground-level SO₂ concentration would not exceed the

¹ *PS&SG Findings and Recommendations Final Report, Public Safety & Sour Gas*, Provincial Advisory Committee on Public Safety and Sour Gas, December 2000.

AAAQG. As noted during the hearing, EOG must submit a flaring application including dispersion modelling to show that emissions will be within the AAAQG. If the parameters change for flaring during completion and testing operations, the Board will place conditions in the flaring permit to ensure that the AAAQG are not exceeded.

The Board finds that emissions from the production of the proposed well would be minimal, as there will not be any continuous flaring at the proposed well site. Although a permanent flare stack is proposed for the site, EOG stated it would only be used for upset conditions at the lease site and not to depressure a pipeline into which the well would be tied. The interveners did not provide any specific evidence regarding sources of low level H₂S and SO₂ emissions and potential sources of such emissions in this case.

As a result, the Board concludes that the emissions from the proposed well are minimal and within the AAAQG and would not affect the safety of the residents of Wintergreen Woods.

6 PROPERTY VALUES

6.1 Views of the Applicant

EOG submitted that if the subject well were drilled, there would not be any impact on the property values of the Wintergreen Woods residences. In response to the report “Impact of Oil and Gas Activity on Rural Residential Property Values,”² submitted by the interveners, EOG quoted from the report that there were too few properties studied that had oil and gas activity on or within 2 km to draw any conclusions with respect to the impacts on property values. It added that the report acknowledged that the authors had not considered many factors that could impact property values. EOG argued that some conclusions in the report appeared to be counterintuitive, such as the relationship between the distance between the oil and gas development and the property in question. The applicant submitted that no conclusions respecting the impact of its proposed well could be reached on the basis of the referenced study.

6.2 Views of the Intervenors

The interveners acknowledged that negative impacts on property values were the least of their concerns, compared to the other issues they raised. However, they believed that the proposed well would have a negative impact by causing their properties to suffer devaluation. This was another risk imposed on them without any benefit to them. The interveners argued that even if there were no measurable impacts of having a sour gas well in the vicinity of their residences, there would still be a negative impact on the value of their homes simply due to public perception. They noted that media reports of the poor quality of water in the adjacent Hamlet of Bragg Creek had an impact on the restaurants and property values in the hamlet. The interveners also cited the report on property values in support of their argument that property values may decrease by as much as 10 per cent. The interveners argued that many of the criteria used in the study fit the properties in Wintergreen Woods, but that the property values used in the study were lower than those in Wintergreen Woods.

² *Impact of Oil and Gas Activity on Rural Residential Property Values*, December 16, 2003.

The interveners asked the Board, if it were to approve the EOG application, to add a condition to have EOG compensate them for any negative impacts on their property values. They argued that the Board had jurisdiction to do so.

6.3 Views of the Board

With respect to the property value report, the Board notes that while EUB staff contributed to the report, the conclusions, opinions, and recommendations are those of the authors and do not necessarily reflect the views of the organizations that employ them. The report does not reflect or contain the views of the Board.

The Board is of the view that a site-specific analysis of any impact on property values is necessary, as location and distance of the proposed well in relation to the properties in question are essential in the determination of impacts. Without site-specific data on property value impacts, the Board cannot conclude that the proposed well would have an impact on the property values within the Wintergreen Woods subdivision.

Notwithstanding the above conclusion, the Board wishes to make it clear that it does not have the jurisdiction to rule on compensation even if the evidence were clear that there would be property devaluation as a result of the approval of this application. The Board can only deal with property devaluation in the context of impacts of the proposed project or facility. This impact would then be considered in the context of the overall impact analysis related to the application under consideration.

Dated in Calgary, Alberta, on October 19, 2004.

ALBERTA ENERGY AND UTILITIES BOARD

(Original signed by)

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

(Original signed by)

T. M. McGee
Board Member

(Original signed by)

D. D. Waisman, C.E.T.
Acting Board Member

APPENDIX 1 HEARING PARTICIPANTS

Principals and Representatives (Abbreviations used in report)

Witnesses

EOG Resources Canada Inc. (EOG)
 B. K. O’Ferrall, Q.C.
 D. Naffin

Z. Tymrick, P.Eng.
 R. Long, P.Eng.
 A. Orr
 L. Dunham
 M. Thorne
 R. Brown, of
 Bissett Resource Consultants Ltd.
 I. Dowsett, of
 RWDI West Inc.
 D. B. Davies, Ph.D., of
 CanTox Environmental

D. O’Nions, D. and K. Deere, P. Cook
 R. Secord

D. O’Nions
 D. Deere
 K. Deere
 P. Cook

M.D. of Rockyview

T. West

V. Pedenko

V. Pedenko

J. and K. Kovats

J. Kovats

Alberta Energy and Utilities Board staff

G. Bentivegna, Board Counsel

S. Etifier

G. McClenaghan

J. Schlager

APPENDIX 2 SUMMARY OF COMMITMENTS AND CONDITIONS

The Board notes throughout the decision report that EOG has undertaken to conduct certain activities in connection with its operations that are not required by the EUB's regulations or guidelines. These undertakings are described as commitments and are summarized below. It is the Board's view that when a company makes commitments of this nature, it has satisfied itself that these activities will benefit both the project and the public, and the Board takes these commitments into account when arriving at its decision. The Board expects the applicant, having made the commitments, to fully carry out the undertaking or advise the EUB if, for whatever reasons, it cannot fulfill a commitment. The EUB would then assess whether the circumstances regarding the failed commitment warrant a review of the decision to approve the application. The Board also notes that the affected parties also have the right to request a review of the decision if commitments made by the applicant remain unfulfilled.

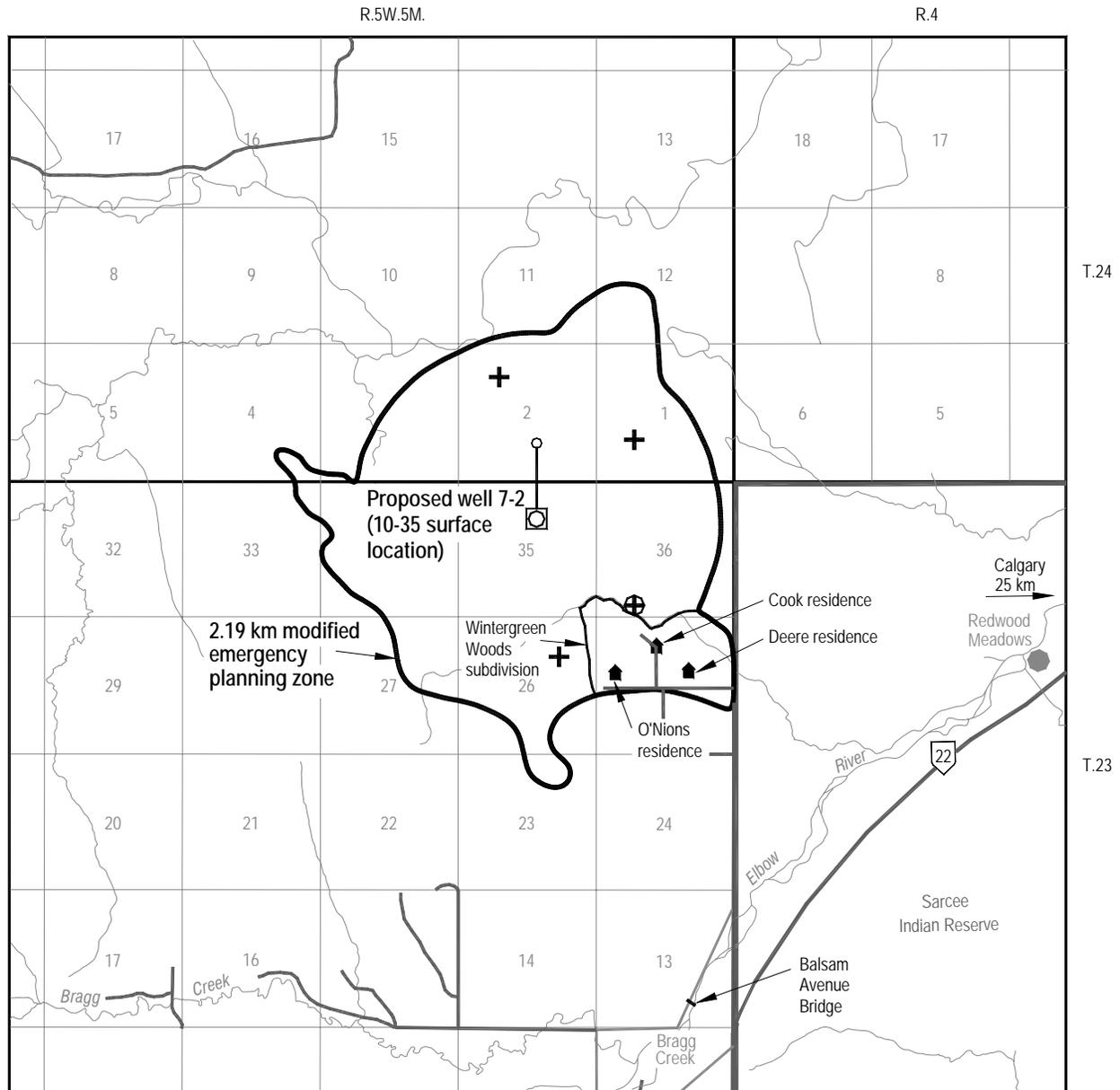
COMMITMENTS BY EOG

- EOG will install a downhole choke on the well if the well is successful and it is necessary to ensure that Wintergreen Woods is not within the production EPZ.
- EOG will not enter the sour zone if weather and road conditions prevent safe evacuation of the EPZ should an emergency occur.
- EOG will test its ERP communication and response protocols prior to drilling into the sour zone.
- As set out in its ERP, EOG will have a mobile air monitor, three stationary monitors, and one weather/stationary monitor established 72 hours prior to and during normal sour drilling, completions, and testing operations.

CONDITIONS

The conditions imposed in the licences are summarized below. Conditions generally are requirements in addition to or otherwise expanding upon existing regulations and guidelines. An applicant must comply with conditions or it is in breach of its approval and subject to enforcement action by the EUB. Enforcement of an approval includes enforcement of the conditions attached to that licence. Sanctions imposed for the breach of such conditions may include the suspension of the approval, resulting in the shut-in of a facility.

- Should EOG drill this well in the winter months, EOG must have a contractor on standby to plough the roads, if necessary, to ensure that the roads are passable in the event that an evacuation is necessary while conducting operations in the sour zone.
- EOG must supply copies of the updated ERP to any resident within the EPZ who requests it.
- EOG is directed to ensure that its test of communications and response protocols conforms to a tabletop exercise, including communications, as described in Appendix 3 of *Guide 71*.



Legend

- Proposed well site
- Bottomhole location
- ▲ Resident
- Highways / roads
- ⊕ Real-time monitor/weather station
- + Stationary air-monitoring units

Figure 1. Project Area