

**COMPTON PETROLEUM CORPORATION
APPLICATIONS FOR A SOUR GAS WELL, BATTERIES,
AND ASSOCIATED PIPELINES
VULCAN FIELD**

**Decision 2002-041
Applications No. 1084839, 1084841, and 1076136**

1 BACKGROUND AND INTRODUCTION

Compton Petroleum Corporation (Compton) submitted a number of well licence and surface facility applications during the months of April 2000 through June 2000. Several landowners in the Vulcan area raised concerns at that time to the Alberta Energy and Utilities Board (EUB/Board). The EUB became aware of increased development in the Vulcan field by a number of other operators, and the Board directed EUB staff to work with area operators and landowners to develop a coordinated approach for future oil and gas development in the area. A multi-stakeholder process was developed, and Compton agreed to withdraw its applications on August 22, 2000, to work with the multistakeholder process and determine how to proceed with future development in the area. While stages 1 to 3 of the multistakeholder process were completed, stage 4 ended on July 25, 2001, without an agreed-to process. A core of 11 people committed to continue to work together to mutually address development issues. Compton subsequently applied for the subject applications.

2 APPLICATIONS

The EUB received Application No. 1076136 on October 24, 2000, and Compton advised that several additional applications were forthcoming. Applications No. 1084839 and 1084841 were received on January 26, 2001. Application 1084839, for a sour gas well, was filed pursuant to Section 2.020 of the Oil and Gas Conservation Regulations (OGC Regs.). The surface location would be in Legal Subdivision 4 of Section 11, Township 17, Range 25, West of the 4th Meridian (LSD 4-11-17-25W4M), with a bottomhole location in LSD 13-2-17-25W4M (13-2 well). Applications No. 1084841 and 1076136, for two single-well sour gas batteries and associated pipelines, were filed pursuant to Section 7.001 of the OGC Regs. and Part 4 of the Pipeline Act. The batteries would be located at LSD 4-11-17-25W4M (4-11 battery) and LSD 5-1-17-25W4M (5-1 battery/well) respectively.

2.1 Application 1084839

Compton indicated that the application for the 13-2 well was filed for the purpose of obtaining gas production from the Turner Valley Formation. The well would be a level-1 sour gas well with a maximum hydrogen sulphide (H₂S) content of 7.5 moles per kilomole (mol/kmol) (0.75 per cent), an estimated potential drilling release rate of 0.186 cubic metres per second, and a drilling emergency planning zone (EPZ) of 753 metres (m).

2.2 Application 1084841

The 4-11 battery would be designed for a sulphur inlet of 0.85 tonnes per day (t/d), handle sour natural gas with a maximum H₂S content of 7.5 mol/kmol (0.75 per cent), and be designed for approximately 85.0 thousand cubic metres per day (10³ m³/d) of raw gas, 5.6 m³/d of oil/condensate, and 5.6 m³/d of water.

The pipeline would transport sour natural gas from the 4-11 battery to tie into the pipeline at the 5-1 battery. The pipeline would be approximately 3.13 kilometres (km) in length with a maximum outside diameter of 114.3 millimetres (mm), and would transport sour natural gas with a maximum H₂S content of 7.5 mol/kmol (0.75 per cent).

2.3 Application 1076136

The 5-1 battery would be designed for a sulphur inlet of 0.85 t/d containing sour natural gas with an H₂S content of 7.5 mol/kmol (0.75 per cent) and be designed for approximately 85.0 10³ m³/d of raw gas, 5.6 m³/d of oil/condensate, and 5.6 m³/d of water.

The pipeline would transport sour natural gas from the 5-1 battery to a tie-in point located in LSD 7-24-16-25W4M (7-24 tie-in). The pipeline would be approximately 5 km in length, with a maximum outside diameter of 114.3 mm, and would transport sour natural gas with a maximum H₂S content of 7.5 mol/kmol (0.75 per cent).

3 INTERVENTIONS

In response to the first application filed with the EUB (5-1 battery application), Mr. and Mrs. Kettenbach (the Kettenbachs) (residence and farm located in the northeast [NE] quarter of Section 3, Township 17, Range 25, West of the 4th Meridian) believed they were faced with piecemeal applications and that all Compton projects in the area should be heard together. They believed that, given the Board's direction to proceed with a regional development plan for the area, Compton's applications were premature.

The Kettenbachs believed that they would be adversely affected by the applications since sour gas emissions in certain concentrations could constitute a lethal health hazard and in lesser concentrations could constitute a chronic or episodic health hazard. They requested that Compton use closed systems and incinerators. As Compton was not prepared to commit to the implementation of closed systems and the use of incinerators, they objected to Compton's applications.

Mr. Roberts, of Roberts Ranch (residence and ranch located in NE 34-16-25W4M), objected to the 13-2 well being near his property. He was concerned about exposure to toxic emissions from flaring for himself and his cattle, lack of consideration by Compton for the environment, and reduced property value due to the proposal. At the hearing, Mr. Roberts and the Kettenbachs constituted the Intervener Group.

Mr. and Mrs. Graff (the Graffs) (residence and farm located east of the town of Vulcan, Alberta, in NE 36-16-24W4) objected to the applications as the wells would tie into the existing 7-24 tie-in pipeline infrastructure and additional production and emissions would be transferred to facilities closer to their farm. Therefore, they believed that their basic human rights and the right to enjoy their property would be infringed upon. In addition, they had health concerns associated with travelling by the proposed pipelines to access their other properties.

4 HEARING

The Board held a public hearing in Vulcan, Alberta, on January 22, 2002, before T. M. McGee (Presiding Board Member), G. J. Miller (Board Member), and M. J. Bruni, Q.C. (Acting Board Member). The location of the proposed facilities and the EPZs are shown on the attached figure. Those who appeared at the hearing are listed in the following table.

THOSE WHO APPEARED AT THE HEARING

Principals and Representatives (Abbreviations used in report)	Witnesses
Compton Petroleum Corporation (Compton) L. H. Olthafer	T. J. Kellar, C.E.T. S. Wyzykoski, P.Eng. M. R. Bellefeuille, of D. R. Hurl & Associates Ltd. B. A. Polinkas, C.E.T., of Petro Plan Safety Ltd. D. Milne, of Ramdar Resource Management Ltd.
J. and E. Kettenbach (the Kettenbachs) and N. Roberts (Intervener Group) G. S. Fitch	J. Kettenbach E. Kettenbach N. Roberts P. Degenstein
L. and B. Graff (the Graffs)	B. Graff
Alberta Energy and Utilities Board staff G. Bentivegna, Board Counsel P. R. Forbes, C.E.T. S. L. Cartwright K. Eastlick, P.Eng. S. Sharpe	

5 ISSUES

The Board is of the view that the following issues arise from the applications:

- need for the proposed well, facilities, and pipelines
- location of the facilities
- flaring and emissions
- operations management
- emergency response planning
- public consultation and community relations

6 NEED FOR THE PROPOSED WELL, FACILITIES, AND PIPELINES

6.1 Views of the Applicant

Compton stated that its current assessment of potential oil and gas development in the area was part of its Vulcan Area Potential Development Plan. Further, it stated that its mineral landholdings in the area consisted of Crown petroleum and natural gas leases and access to certain freehold mineral rights owned by PanCanadian Petroleum Limited (PanCanadian). In relation to the subject applications, Compton said it held a Crown petroleum and natural gas lease in Section 2-17-25W4M and had access to the PanCanadian freehold mineral rights in Section 1-17-25W4M pursuant to a farm-in arrangement.

Compton said that the proposals to drill the new well targeting the 13-2 bottomhole location and to tie in the suspended 5-1 well were the impetus behind the facility and pipeline applications. The proposed 13-2 well and existing 5-1 well were expected to produce reserves that were slightly sour, at 0.4 per cent to 0.64 per cent of H₂S in the raw gas, at initial rates of approximately 56 10³ m³/d (2 million cubic feet per day).

At each battery, Compton proposed to use a closed system to eliminate the requirement for on-site water storage and the continuous flaring of the small amounts of sour gas associated with it. However, a flare stack would still be required for depressurization associated with scheduled maintenance activities and potential upsets in emergency situations. The batteries would each include a separator, a methanol and chemical inhibitor tank, a solar-powered program logic control panel, associated aboveground piping, including a pig launcher and receiver, and a 12 m (40 foot) flare stack with flame arrester, continuous pilot, wind shroud, and an 8 m³ (50 barrel) underground water knockout drum. The gas condensate and associated water from the wells would be produced to the proposed pipelines, which would connect to the 7-24 tie-in of the existing Conoco Canada Limited (Conoco) gathering system.

Compton emphasized that the Intervener Group had not provided evidence that its applications were technically deficient or otherwise in noncompliance with regulatory requirements. Compton believed that it adhered to regulatory requirements, which secured the observance of safe and efficient practices in the drilling and operations for the production of oil and gas. Therefore, it submitted that its applications were in the public interest and consistent with efficient and orderly development of the province's energy resources.

Compton stated that in view of the extended period that had passed since the completion and testing of the 5-1 well, it respectfully requested expedited approval of Application No. 1076136. In addition, as the proposed pipeline between the proposed 4-11 and 5-1 batteries was contingent on a determination that the 13-2 well would be capable of commercial production, Compton further requested a minimum two-year term on the pipeline permit for construction.

6.2 Views of the Interveners

Although the Intervener Group did not specifically comment on the need to drill the 13-2 well, the rights to produce the 13-2 and 5-1 wells, and construct and operate the batteries and pipelines, they argued that there had been a complete failure by Compton to demonstrate the need for the 13-2 well at the applied-for surface location (discussed in Section 7 of this report). Therefore, they believed it would not be in the public interest for the Board to approve the proposed applications.

6.3 Views of the Board

The Board accepts the evidence put forward that the applications represent a part of Compton's overall Vulcan Area Potential Development Plan. The Board notes that Compton has demonstrated that it acquired the mineral rights under a petroleum and natural gas lease for Section 2-17-25W4M and a farm-in agreement with PanCanadian for Section 1-17-25W4M. Additionally, the Board acknowledges that the interveners did not provide any evidence specific to the need to drill the 13-2 well, Compton's rights to produce the 13-2 and 5-1 wells, or the need for the applied-for facilities and pipelines.

The Board notes that Compton estimated the produced reserves from both the 13-2 and 5-1 wells to be approximately $56 \times 10^3 \text{ m}^3/\text{d}$. The Board acknowledges that if the 13-2 well is commercially productive, it would require a surface facility and pipeline to produce it. Further, the Board also acknowledges that the existing 5-1 well has been drilled, is currently suspended, and requires a surface facility and pipeline to produce it. Therefore, the Board is of the view that there is a need for the applied-for well, facilities, and pipelines.

The Board further notes that the proposed pipeline between the proposed 4-11 and 5-1 batteries would be contingent on a determination that the 13-2 well would be capable of commercial production. As the Board did not hear argument or evidence to dispute Compton's request for an extended term on its pipeline permit, the Board believes that it would be reasonable to set a two-year term on the pipeline permit for construction.

7 LOCATION OF THE FACILITIES

7.1 Views of the Applicant

In response to the Intervener Group's statement that the need for the surface location of the 13-2 well had not been shown, Compton argued that this view had no basis in fact. Compton stated that while the Intervener Group would have preferred a location farther from their residences, Compton submitted that it had shown the need for placing the 13-2 well surface location at LSD

4-11-17-25W4M. Compton stated that it considered the following factors in making its decision regarding the surface location of the 13-2 well:

- Compton stated that while it would have preferred to drill the 13-2 well vertically, the surface landowner would not consent to a surface lease in Section 2-17-25W4M. The location chosen was the preferred location of the landowner on whose land the well site was to be situated and for which the surface lease had been acquired.
- The proposed bottomhole location of the 13-2 well was the most geologically optimum location.
- Compton considered the increasing probability of significant drilling problems as the horizontal distance to the surface location was lengthened. Compton stated it based this assumption on its experience acquired from the directional drilling of other wells through similar formations.
- Compton considered the additional costs of lengthening the horizontal distance to the surface location.

With respect to the alternative proposed by the Intervener Group, Compton stressed that this proposal was unworkable and unacceptable to Compton for the reasons set out above. Compton asked the Board to proceed with its application as filed for the 13-2 well.

7.2 Views of the Interveners

The Intervener Group believed that Compton had not demonstrated a need for the 13-2 well at the applied-for surface location, as required by the Board. They did not agree that the surface location was selected based on the maximum deviation that Compton believed could be performed with directional drilling. They argued that Compton's explanation and geological argument was completely unsatisfactory and unsubstantiated, as evidenced by inconsistencies in earlier information.

The Intervener Group noted that Compton had previously maintained that the maximum deviation of the proposed 13-2 well was 150 m or it would run into significant drilling problems. They added that the new proposed surface location would result in a 235 m deviation. The Intervener Group argued that if 150 m was not the maximum deviation, then maybe neither was 235 m. In support of this argument, they indicated that Conoco had drilled a well from a surface location in LSD 13-12-17-25W4M to a bottomhole location in LSD 9-11-17-25W4M (9-11 well), a deviation of 531 m. Additionally, they noted that Compton had acknowledged during the hearing that the 13-2 well was virtually identical in depth and geology to Conoco's 9-11 well. Therefore, they questioned why Compton could only drill a well with a deviation of 235 m and argued that the additional cost to deviate farther was not a good reasons not to do so.

As a result of the above, the Intervener Group concluded that the 13-2 well application should be denied. Or, as an alternative, the Board should require Compton to revise its application for the 13-2 well and reapply within 45 days of the hearing with a new surface location agreeable to the

Intervener Group, Compton, and the surface lessor. At that time, the Intervener Group would submit a notice of withdrawal of objection.

7.3 Views of the Board

The Board notes Compton's submissions that the proposed 13-2 well surface location was determined on the basis of the surface landowner's preference, geological considerations, potential for significant drilling problems associated with increasing the horizontal distance from the surface location to the bottomhole location of a well, and costs. The Board cannot infer that a greater deviation is possible in drilling the 13-2 well from the fact that another area operator was able to drill a well with a greater deviation, since the Board did not have any evidence regarding the factors considered by that operator.

In considering whether a proposed project is in the public interest, the Board takes into account the impacts on potentially directly and adversely affected parties. In this case, the Intervener Group submitted that the 13-2 well should be located farther from their residences to minimize impacts, while Compton submitted that the landowner on whose land the 13-2 well site would be located had chosen the proposed location to minimize impacts on his land and had entered into a surface lease agreement with Compton. The Board also acknowledges that cost is also a factor in determining whether a project is in the public interest. The Board is of the view that Compton has shown the need for the proposed surface location of the 13-2 well. The Board is not persuaded by the Intervener Group's argument to the contrary. Additionally, regarding the Intervener Group's alternative, as the parties were not in agreement, the Board cannot agree to the request and must make a decision on the application before it. Therefore, the Board accepts that the proposed surface location of the 13-2 well in LSD 4-11-17-25W4M is appropriate, as the impacts associated with the proposed surface location have been mitigated appropriately with respect to the surface owner and the interveners, as noted below.

With regard to the location of the proposed batteries and associated pipelines, the Board notes that there was no argument or evidence presented to dispute the locations of these facilities. The Board considers the location of the proposed batteries and associated pipelines to be acceptable.

8 FLARING AND EMISSIONS

8.1 Views of the Applicant

Compton noted that the design for the proposed batteries had been changed subsequent to its original plans to closed systems in response to landowner concerns about emissions. Relative to the initial approach in which separated hydrocarbon liquids and produced water would be stored in tanks that vented to a continuous flare, the proposed system provided for transporting the combined gas and liquids stream to Conoco-operated processing facilities. Compton said that the on-site flares would only be used for pigging, maintenance depressuring, and emergency flaring. It stated that the volume of gas contained in a pig trap was 12.8 m³ and some 88 m³ would be released during a well site battery blowdown.

Compton said that it was unwilling to replace the proposed flares with incinerators at the 4-11 and 5-1 batteries. It stated that fuel gas required to maintain incinerator temperature at 0.4 to 0.6 10^3 m^3 per day would be 25 to 33 times greater than the pilot fuel requirement for a flare. It further stated that a flare would be more suited to the range of flow rates associated with upset and emergency conditions.

Compton said that it would use an incinerator for testing the 13-2 well. However, in response to questioning, it noted that a flare would be used for drillstem tests and for well completion cleanup. It said it had determined that in-line testing of the 13-2 well was not viable, as this would require construction of a 3 km pipeline before it could be determined whether the well was capable of commercial production. In addition, Compton stated that it would install gas and H_2S detection equipment at its proposed batteries.

Compton committed to implementing arrangements to give advance notice to the Intervener Group of scheduled maintenance activities involving depressuring at the 4-11 and 5-1 batteries. It said that it would prefer arrangements for communications 24 hours in advance by e-mail or voice-mail.

8.2 Views of the Interveners

The Intervener Group stated that their paramount concerns regarding the 13-2 well were related to emissions during drilling, completion, testing, and production, as well as production emissions from the 5-1 well. The Kettenbachs were especially concerned about the potential effects of the emissions on their young children, one of whom had a diagnosed asthmatic condition. They stated that Compton only agreed to alternatives involving less flaring and emissions as a result of repeated requests by the Intervener Group for closed production systems and incineration. The Intervener Group said that Conoco had committed to both a closed production system and an incinerator at its nearby facility and that such a commitment was more protective of their health than the proposals by Compton for the 4-11 and 5-1 batteries. They said that although the facilities were now proposed as closed systems, there would still be emissions during maintenance activities.

On the use of incinerators, the Intervener Group observed that while an incinerator might use more fuel gas, combustion efficiency would be 99.9 per cent. However, they noted that according to University of Alberta research, flare efficiency could be variable, especially under windy conditions. They believed that incineration would be far more efficient at destroying toxic compounds.

The Intervener Group stated they preferred that the applications be denied. However, they requested that any Board approval incorporate conditions with respect to emissions and air quality. These included a requirement to use incinerators rather than flares at the 4-11 and 5-1 batteries. Further, they requested that Compton be required to provide them with advance notice of maintenance that would involve depressuring the well facilities to flare and its intention to tie in the 13-2 well.

The Graffs said that the proposed facilities were within several kilometres of their family's home and lands and that the emissions from flaring could affect their family. They also objected to the

proposed project because the gas would be routed to the Conoco facility located in LSD 16-16-16-24W4M (16-16 facility) and would increase emissions at that site. They explained that their family had smelled and felt emissions from the 16-16 facility and that they had outstanding objections to that facility. The Graffs stated that it would be better if the gas were routed north and west to an existing Compton pipeline.

8.3 Views of the Board

The Board notes that Compton's proposed facilities have been designed as closed systems to minimize emissions in response to the concerns of local landowners. If operated diligently, the Board expects that the operations will not adversely impact local air quality.

The Board accepts Compton's testimony that incinerators could increase fuel gas consumption and may not be as suited to both low flow and emergency depressuring flows as a flare. The Board believes that properly designed and operated flares will adequately dispose of gas related to intermittent maintenance activities. Thus, the Board will not require that incinerators be used. However, the Board notes research that indicates flare combustion efficiency may be problematic at low flow rates and directs Compton to ensure that the flares are designed and operated so that flare emissions of uncombusted sour gas do not result in off-lease odours. If repeat off-lease odours are traced to poor flare performance, the Board will require Compton to adopt measures to ensure adequate combustion of the sour gas.

The Board acknowledges Compton's commitment to use an incinerator for production testing of the 13-2 well. However, the Board is concerned that Compton's intentions to use a flare for drillstem testing and completions cleanup only came to light in response to EUB staff questioning. It is important that commitments regarding limiting flaring through in-line testing or use of incinerators are clearly communicated to the public, including disclosure of any conditions where flaring may occur. This is critical to creating and sustaining public credibility and confidence. The Board recognizes that some flaring is often necessary during drilling and completions and commitments for in-line or incinerator testing do not necessarily preclude that some flaring may occur. However, the Board believes that the public, when promised in-line testing or incineration, does not reasonably expect to see flaring during any aspect of well drilling, completions, or testing, as the public would not typically draw a distinction between completions and testing. Given Compton's commitment to use an incinerator for well testing, completions flaring should only be undertaken if it is impractical to use the testing incinerator for that purpose. The Board therefore expects Compton to assess and minimize completions flare volumes.

The Board notes the interveners' concerns about odours and Compton's capacity to detect and correct sources on a timely basis. The Board believes that the closed system designs proposed by Compton will minimize many odour sources. The Board acknowledges that Compton stated it would install gas and H₂S detection at the well sites and directs that Compton follow through in that regard. Further, the Board believes that an effective gas and H₂S detection and mitigation program is an essential element of upstream petroleum industry operations, especially in sour gas areas. The Board expects that operators will regularly check facilities for odours and have a system in place to report and promptly correct odour sources. The Board therefore directs

Compton to ensure that gas and H₂S detection, reporting, and correction procedures are included in its operating practices and in any third-party operations contracts.

The Board acknowledges Compton's commitment to implement arrangements for advance notification to the Intervener Group of scheduled maintenance activities involving depressuring at the 4-11 and 5-1 batteries. The Board further notes Compton's preference to communicate by e-mail or voice-mail 24 hours in advance. The Board heard evidence of this same request from the Intervener Group, although they did not provide specifics. Therefore, the Board considers the notification proposed by Compton to be acceptable and fully expects Compton to adhere to its commitment.

The Board notes the concerns of the Graffs about the impacts that the proposed applications may have on the 16-16 facility. However, the Board was unable to determine from the evidence the level of impacts, as no evidence was provided at the hearing regarding this issue.

As a result of the proposed facilities being designed as closed systems, the use of incineration for testing, and the Board's expectation that completions flare volumes will be assessed and minimized, the Board is of the view that the impacts on the interveners have been appropriately minimized.

9 OPERATIONS MANAGEMENT

9.1 Views of the Applicant

Compton said that it would contract Conoco to operate the 4-11 and 5-1 batteries, and associated pipelines. However, it noted that it would continue to be responsible, as the licensee, for drilling and testing the 13-2 well, constructing the batteries and pipelines, and conducting major inspection activities.

Compton said that it made sense for Conoco to operate its facilities, since Conoco was the principle area operator and operated similar facilities in the locality, as well as major gas handling and processing facilities. Compton said that its proposed facilities could be integrated into Conoco's system and that Conoco was aware of compatibility issues on matters such as corrosion management and pigging operations.

Compton stated that its contract would require Conoco to comply with EUB requirements and guidelines. Compton said that it would have Conoco forward operations, downtime, and maintenance records to it, including confirmation that maintenance depressuring notification was given to landowners according to its commitments in that regard. It said that the reports would be forwarded to and reviewed by Compton's head of southern Alberta operations and by its field superintendent. Compton stated that it would conduct regular site inspections to confirm that its sites were being properly and safely operated. In that regard, it noted that two of its Mazeppa field operators lived in Vulcan.

Concerning the complaints shown in Compton's corporate record referred to by the Intervener Group, Compton responded that it took complaints seriously and the record showed very few

repeat occurrences of any complaints. Further, Compton stated that the EUB had not taken any level-3 or -4 enforcement action against it under the EUB enforcement ladder.

Compton said that there would also be a company contact, its field superintendent or alternate, available on call 24 hours per day and that the telephone number would be made available to the public in the area.

In addition to the above operating commitments, Compton said that it would pay for the testing of the Intervener Group's water wells prior to and, if requested, after the drilling of the 13-2 well. However, it stated that this commitment would be subject to the service provider being a reputable company acceptable to both the landowners and Compton, the water well test being for standard quantity and quality parameters, Compton being provided with a copy of the resulting data, and Compton being able to have a representative at the site during any testing.

9.2 Views of the Interveners

The Intervener Group submitted that Compton was not committed to the highest standards in environment, health, and safety. They noted, notwithstanding the significant scope of Compton's operations including sour gas production, that the company did not have a full-time person responsible for environment, health, and safety. They further observed that Compton's policy witness, apparently responsible for such matters, had no specific training or experience in that regard.

They observed that Compton's operating record included several complaints, a number of which related to odour and flaring issues. Based on Compton's track record, they stated that they did not expect that the 13-2 and 5-1 wells would be produced without problems. They were concerned that should problems occur, Compton might not attend to them unless landowners pursued the matters. The Intervener Group stated that they were not prepared to police the company and its facilities.

The Intervener Group said that they were extremely disappointed with Compton's refusal to readily make available its corporate record when requested. Also, they were not satisfied with the one-page document provided, which only identified that no level-3 or level-4 noncompliance events existed. They were not satisfied that this reflected a realistic picture of the scope of Compton's compliance record.

The Intervener Group was also dissatisfied with the EUB, as it had not provided Compton's corporate record when requested. They argued that the corporate record should be available to the public. However, they were told by the EUB that they could submit a request under the Freedom of Information and Protection of Privacy Act (FOIP). Also, they were disappointed that the EUB did not order Compton to provide its corporate record to them and questioned the transparency of the EUB enforcement process.

The Intervener Group stated that the proposed arrangement with Conoco resulted in a lack of accountability in terms of which company would be responsible for environment, health, and safety. They noted that Compton would not be operating the facilities and it was not clear who the contacts would be for reporting odours or other problems. They said that local residents

expected that there would be someone they could depend on whom they could call with a complaint and who would take action.

In addition, the Intervener Group stated that Compton should be required to reimburse the Intervener Group for the costs of obtaining testing of their water wells before and after drilling and completion of the 13-2 well. They also agreed to Compton's suggestion that the wells should be tested by an independent company acceptable to them and Compton.

9.3 Views of the Board

The Board notes the concerns of local residents with respect to accountability for operations of the proposed facilities and for response to complaints and incidents. The Board recognizes that operating contracts typically define obligations of third-party operators and expects that would be the case in arrangements between Compton and Conoco. While generalities about Compton's approach to setting out operating contracts were discussed, the Board was not provided with detailed evidence in that regard.

The Board has carefully reviewed the complaints shown in Compton's corporate record. The Board believes that there was no evidence to indicate that Compton did not respond to the complaints and acknowledges the testimony of Compton that there were very few repeat occurrences. Additionally, the Board was unable to determine from the evidence how many of the complaints were substantiated. In any event, the Board is aware that complaints were followed up and investigated by the EUB's Field Surveillance Branch, which determines whether enforcement action was necessary. The Board further notes the evidence that no level-3 or level-4 enforcement action existed against Compton.

With regard to the issues about corporate records, the Board notes the concerns of the Intervener Group that the EUB should make these records available to the public. However, the Intervener Group was advised that a FOIP request was required to access the information, as the EUB had not made the information public. FOIP affords protection to all parties concerned. The Intervener Group did not submit a FOIP request. The Board noted that the request for an order directing Compton to provide this information was made to the Board a few days before the hearing and did not allow sufficient time to respond. The Board believes that a request of this nature could have been made well in advance of the hearing and the information obtained in a timely fashion.

The EUB holds a licensee accountable for regulatory compliance and for addressing complaints regardless of whether third parties are contracted to carry out operations on its behalf. The responsibilities of a licensee in that regard cannot be abdicated to third-party contractors. The Board expects a licensee, through its own staff or contract operating arrangements, to have in place a system of planning and controlling its operations to ensure compliance with its commitments and regulatory requirements. The system needs to include

- identification of relevant regulatory requirements;
- development of related engineering control, operating, and maintenance procedures and programs;
- clear assignment of responsibilities to qualified parties and leaders;
- adequate inspection and audit measures to verify compliance;

- procedures for complaint and incident investigation and reporting, as well as for follow-up on corrective actions arising from the investigations; and
- regular management review of system performance and direction on improvements.

The Board believes that it is particularly important for sour gas operators to have diligent operations management systems in place and effective procedures for receiving and addressing public complaints. In the latter case, local residents must be provided with contact information so they can reach responsible parties that can initiate prompt and appropriate responses to reported situations.

Given the concerns raised at the hearing, the Board directs Compton to provide to the Board a summary description of its operations and facility integrity (maintenance) management system for the proposed project prior to initiation of operations at the 4-11 and 5-1 batteries. The report must include contact information that will be provided to local residents and a description of Compton's procedures for responding to public complaints. The report must detail how any arrangements with third-party operating contractors will address Compton's operations management system and procedures for responding to public complaints.

The Board further notes the request from the Intervener Group and the commitment by Compton to pay for the testing of the their water wells prior to and, if requested, after the drilling of the 13-2 well. The Board believes that this would be an acceptable means to ensure that their water wells would be protected from any drilling operations by Compton at the 13-2 well and expects Compton to adhere to this commitment.

As a result of the operations measures identified above, the Board is of the view that any impacts from the operations of the proposed facilities are minimized.

10 EMERGENCY RESPONSE PLANNING

10.1 Views of the Applicant

Compton explained that it had developed two emergency response plans (ERPs), one for the drilling and completion of the 13-2 well and the other a production ERP for both the 4-11 and 5-1 batteries and associated pipelines. It provided a level-1, noncritical drilling ERP for the proposed 13-2 well that was developed using a 753 m EPZ, containing three occupied residences. Production ERPs were also provided for the proposed 4-11 and 5-1 batteries and associated pipelines, using EPZs of 670 m, 450 m, and 150 m respectively. Compton said that it had the plans written by two different companies for ease of implementation. United Safety provided the safety services for Compton's rigs and, therefore, Compton believed that it would be prudent for the drilling ERP to be developed by the company that would implement the plan. It said that Petro Plan Safety Ltd. had developed Compton's corporate ERP and, therefore, for consistency it had the same company develop the production ERP.

With respect to inconsistencies between the two ERPs, Compton stated that ERP development was an ongoing process and that due to the significant amount of time that had passed since their initial development, it was possible that some information (e.g., telephone numbers) may have

changed. It said that all information would be verified closer to the actual implementation of the ERPs. Compton noted that under EUB requirements, the drilling ERP was current for a period of six months and that Compton would have to update the ERP prior to commencement of drilling operations. Compton said that it would ensure the ERPs were current and the landowners would be provided new information packages prior to conducting operations.

Compton acknowledged that H₂S evacuation criteria used in its production and drilling ERPs were different. However, it emphasized that, in response to concerns, it adopted more stringent evacuation criteria for the drilling ERP and noted that the production ERP was consistent with Alberta emergency evacuation guidelines. Compton said that its drilling ERP would provide for immediate ignition criteria, as outlined in *Interim Directive (ID) 2001-5: Public Safety and Sour Gas Policy Implementation*.

Compton stated that the size of the EPZs for the wells, batteries, and pipelines had been increased to accommodate requests from the public to be included in response actions.

To ensure that the public could contact an operator in the event of an emergency, Compton said it would supply the residents with Conoco's 24-hour emergency number. Compton stated that initial response would come from Conoco personnel who would coordinate responsibilities with Compton personnel.

Although Compton's witnesses were not familiar with when it had conducted emergency response exercises, it stated that it held corporate exercises, as well as participated in joint ERP exercises with other industry members. With respect to the subject ERPs, it stated that an exercise would be conducted prior to spud for the drilling ERP and committed to another exercise prior to placing the well on production. Compton stated that the production exercise would include Conoco personnel, since these operations would ultimately be consolidated into Conoco's Gladys production ERP.

Compton stated that it was aware that the Intervener Group wanted the option of relocation immediately prior to and during the drilling of the sour zone and completion and testing of the proposed 13-2 well. Compton stated that although it did not support resident relocation other than in exceptional cases, it conceded that subject to reasonable parameters it would be prepared to relocate the Kettenbachs. Given that Mr. Roberts resided a considerable distance outside of the EPZ, Compton said it did not believe that it would be necessary to relocate him or his cattle.

10.2 Views of the Interveners

The Intervener Group stated that they had no confidence in Compton's ability to properly operate the proposed and existing facilities. They further discussed their lack of trust in Compton due to the discrepancies found between the two ERPs, such as EPZ sizes, evacuation criteria, and phone numbers. For example, it was noted from Compton's evidence that should there be a problem with an off-lease odour, they were to call the Mazeppa gas plant and not the Compton employee listed in the ERP. Also, the Intervener Group did not understand why the ignition criterion of 20 parts per million over a three-minute average, listed in the drilling ERP, was not the same as the evacuation criteria for the production ERP. The Intervener Group submitted that the inconsistencies in the ERPs and the differences in whom to contact was confusing.

In light of the evidence brought forward about the ERPs, the Intervener Group believed that they would not be notified of an incident prior to the damage that could result to human health. They stated that Compton's evacuation criteria for those beyond the EPZ made them uncomfortable and that all members of the public in the area should be afforded the same evacuation options.

The Intervener Group requested that if the proposed applications were approved by the Board, Compton be required to relocate the Intervener Group and, in addition, Mr. Roberts's cattle immediately prior to and during drilling in the sour zone, during completion activities, and during testing of the 13-2 well.

10.3 Views of the Board

The Board notes that a level-1, noncritical drilling ERP for the proposed 13-2 well was developed using a 753 m EPZ, containing three occupied residences. Production ERPs were also provided for the proposed 4-11 and 5-1 batteries and associated pipelines, using EPZs of 670 m, 450 m, and 150 m respectively. The total EPZ for the gathering system encompasses six occupied residences and four nonresident landowners. The proposed well, batteries, and pipelines would ultimately be tied into Conoco's Gladys production ERP. The EUB requires operators to develop site-specific ERPs to protect the public in the event of a well control or pipeline rupture emergency. Effective emergency response protocols rely on the public to be informed and understand the procedures to be in place for their protection. To do so, the ERP should be developed with the assistance of the public and address any reasonable concerns. The Board requires an operator to coordinate its plans with other industry, municipal, and government plans.

Based on the evidence presented, it is apparent to the Board that Compton failed to fully coordinate its drilling and production ERPs with the other area operator (Conoco). The Board notes that Compton stated that the public would be provided with Conoco's 24-hour phone number for emergency purposes. However, Compton is required to provide the public with its own 24-hour emergency contact number and ensure that they have a complete understanding of the public protection protocol outlined in each plan. Although the Board is satisfied that effective public protection assistance could be activated from either Vulcan or High River, dependent on the level of services provided from each town, Compton must choose one and ensure that agreements are in place prior to finalizing its ERPs.

The Board agrees that an ERP is a living document and the EUB has regulations in place to determine the length of time that the information is deemed current. However, regardless of the time that elapses between the filing of an application and a hearing date, industry is expected to present current ERPs. Additionally, the Board understands the lack of public confidence arising from the confusion resulting from the inconsistencies between the two plans and the evidence presented by the applicant and its experts.

Compton committed to immediate ignition, as outlined in *ID 2001-5*, and attempted to address the difference between the evacuation criteria listed in the drilling and the production ERPs. However, it is apparent that Compton's experts were not prepared to adequately address the inconsistencies and, as well, misinterpreted the intent of *ID 2001-5*, which refers to critical wells

where reduced planning zones are being applied for. Given the level-1 noncritical designation of the well, battery, and associated gathering system, the Board does not expect Compton to adopt the criteria outlined in *ID 2001-5*. Compton is advised that it is industry's responsibility to ensure that its panel of experts be knowledgeable about the proposed project, relevant regulations, and response capabilities of support services in the area and that they build a level of confidence for the residents with respect to its public protection measures.

While the Board recognizes that inconsistencies between the two ERPs have been identified, it finds that they are not problematic at this stage of the application; they must be corrected prior to submission of the final ERPs. The Board also expects Compton to review the details in its ERPs and update all information, including resident information, emergency contacts, and resources, and submit the final plan to the Board for review and approval prior to the drilling of the 13-2 well and operation of either facility or their associated pipelines. In addition, the Board acknowledges Compton's commitment to provide ERP information packages to landowners within the applicable EPZs and expects Compton to carry out the commitment.

Although the Board recognizes Compton's commitment to conduct an exercise prior to spud for the drilling ERP and prior to placing the 13-2 and 5-1 wells on production, it finds that to effectively test response capabilities, drilling exercises must be conducted prior to entering the sour zone and Compton is required to do so. Compton is further required to afford the public and EUB staff the opportunity to actively participate in both of these exercises. The Board believes that it would be necessary to test all procedures detailed in the drilling and production ERPs to ensure that response personnel are adequately trained and capable of carrying out responsibilities. Compton must test all key components of its ERPs, including chain of command, public notification, communications equipment and linkages, including outside services, evacuation procedures, and ignition procedures, to satisfy EUB staff that the systems are in order for immediate implementation. Further, EUB staff must be satisfied that the exercise was successfully carried out prior to entering the sour zone of the 13-2 well.

The Board acknowledges Compton's commitment to relocate the Kettenbachs immediately prior to the proposed 13-2 wellbore being open to the sour zone during drilling, as well as during the production testing of the well, and expects Compton to carry out this commitment. The Board also notes a similar request from Mr. Roberts for himself and his cattle and Compton's response that this would not be appropriate since he resides outside of the EPZ. The Board believes that Mr. Roberts resides at some considerable distance from the proposed 13-2 well and, as such, would not be impacted to the same degree as the Kettenbachs and, therefore, the Board will not require Compton to relocate him.

11 PUBLIC CONSULTATION AND COMMUNITY RELATIONS

11.1 Views of the Applicant

Compton said it believed oil and gas operators must engage in public consultation to understand the concerns of landowners affected by their proposed facilities. Compton added that public consultation must also inform landowners about the operator's plans and the considerations that have gone into them. Compton argued that the fact a hearing was held on the application was not

an indication that Compton failed in fulfilling its responsibilities in the public consultation process. Compton stated that it remained engaged in the public consultation process and was prepared to explore solutions as circumstances evolved.

Compton added that its applications were the subject of extensive consultations with the potentially affected landowners and that it was diligent in its efforts to communicate with potentially affected landowners and address their concerns. It said that several amendments to its applications were made, largely to address concerns that were raised early in the consultations, as a result of changes to the operation of Conoco's downstream gathering system and the EUB staff review of the H₂S concentrations and release rates. As a result, more than a year had passed from the time that Compton had first initiated its consultation process and submitted its applications. However, Compton believed that the changes to its applications were not reflective of noncompliance with EUB regulatory requirements. Compton was disappointed that the Intervener Group did not withdraw their objections having seen the lengthy consultation process.

With regard to its participation with the Vulcan area multistakeholder group, Compton stated that it attended the first meeting mediated by the EUB. It added that it supported the multistakeholder group, but had not yet had direct involvement in it. Compton indicated that it was prepared to participate in the multistakeholder process to foster better relations with area landowners.

With regard to Mr. Roberts's complaint about lack of communication concerning a damage claim, Compton stated that it had no record of this matter, since it related to seismic operations conducted by Crestar Energy Inc. Compton added that the damage claim was unrelated to its applications now before the Board. Nevertheless, Compton had contacted Mr. Roberts regarding his damage claim, but noted that Mr. Roberts did not respond to its invitations to discuss the particulars of his claim.

11.2 Views of the Interveners

From the time the Intervener Group was first approached in October 1999, they told Compton that they were opposed to having a level-1 sour gas well near their homes due to concerns about emissions. In addition, they informed Compton that their neighbour, the landowner of the proposed 13-2 well surface location, was also not interested in having the well drilled on his land. The Intervener Group said that Compton originally invited them to participate in the initial meetings between Compton and their neighbour in which they voiced their concerns. They added that they were not invited to subsequent meetings.

The Intervener Group believed that it was evident that Compton had not met its public consultation obligations. They submitted that the key component of a public consultation program was consistency and accuracy. The Intervener Group submitted that Compton's story kept changing.

The Intervener Group believed that Compton began a campaign in the Vulcan area to discredit them in the eyes of their neighbours. They were of the opinion that people in their community believed that they were trying to shut down the oil and gas industry in the area. As a result, the Intervener Group believed that Compton had adopted a divide and conquer approach.

The Intervener Group noted that Compton had not participated in the multistakeholder group formed to help address industry and public concerns with regard to oil and gas operations in the Vulcan area. They stated that this showed that Compton was not willing to listen to the concerns of the community and would not be a party to any solutions that the multistakeholder group developed to improve oil and gas operations and community relations.

Mr. Roberts recognized that his damage claim regarding seismic operations was unrelated to the applications before the Board, but he argued that this was an example of Compton's lack of communication with the landowners.

The Graffs stated that the one thing during the hearing that bothered them the most was the arrogant attitude portrayed by the industry and its unwillingness to answer the questions put to it by the interveners. The Graffs believed that Compton and its chosen operator had both been extremely uncommunicative with landowners and this was indicative of communication between industry and landowners throughout the province. They concluded that the EUB was partly responsible for this and felt that energy companies knew they did not have to deal with the landowners fairly because their applications would be approved and their so-called mistakes would be conditioned.

11.3 Views of the Board

The Board acknowledges that Compton conducted a public consultation program early in the development of the proposed facilities. The Board has established minimum notification requirements in *Guide 56: Energy Development Application Guide*, and the Board finds that Compton was in keeping with the requirements and expectations of *Guide 56*. Additionally, the Board acknowledges that Compton extended its notification and consultation area to include a larger EPZ. However, the Board recognizes that over the course of development of the proposed project, changes to the design of the facilities occurred. The Board notes that some of the changes were in response to the Intervener Group's concerns, other changes resulted from revisions in Conoco's gathering system, and some were the direct result of the review of the applications by EUB staff. The changes occurred over an extended period and may not have been conducive to establishing a relationship of trust between Compton and the Intervener Group. The Board believes it is primarily the responsibility of a proponent to initiate, develop, and maintain the appropriate relations with the community it works within. While the Board will assist in facilitating discussion, it intends to continue relying on industry to fulfill its responsibilities in this area. However, the Board notes that the Intervener Group was kept apprised of the changes made to the applications in response to their concerns and expects communities to fully participate in an open dialogue with industry so that issues can be properly identified and addressed on an ongoing basis.

In the Board's view, Compton failed to recognize that a key element to building and sustaining constructive community and stakeholder relations is providing information, listening to concerns, and then trying to resolve those concerns in a respectful and meaningful manner. In addition, as resource owners, Albertans need to be aware of Alberta's supply of energy and mineral resources and the importance of these resources to Alberta's economy and society. The Board believes the positional stances taken by Compton and the interveners limited the dialogue needed to explore solutions to resolve issues. For appropriate communication to occur, all parties

need to be willing to participate in meaningful dialogue. Additionally, the Board believes that the approach Compton took, together with the perception of the area residents that Compton used a “divide and conquer attitude,” led to the polarization. The Board believes proponents need to be aware of the potential for such perceptions and be sympathetic in attempting to understand these concerns. The Board believes that in order to be successful, Compton must demonstrate its corporate commitment to deal with issues and concerns of the community it operates in.

With this in mind, the Board is concerned about Compton’s lack of participation in the multistakeholder group. The Board notes that Compton attended only one meeting. The Board is of the view that when a representative of a company attends a multistakeholder group meeting, it is in its best interest to take an active role in the meeting, meet with the public, and establish dialogue. Of additional concern to the Board is that Compton did not attend subsequent meetings. However, the Board notes that Compton indicated that it intends to participate in future multistakeholder group meetings. The Board believes that this commitment will go a long way to provide the necessary steps to bring all of the parties together to establish the relationship necessary for an operator to operate as a good neighbour in a community. The Board expects Compton to adhere to its commitment.

12 DECISION

Having carefully considered all the evidence, the Board finds that Compton has demonstrated the need for the proposed well, facilities, and pipelines, which can be drilled, constructed, and operated in a safe and environmentally acceptable manner. The Board finds that the associated impacts will be properly addressed and mitigated. As a result, the Board is of the view that the subject applications are in the public interest and, therefore, approves the applications, subject to Compton meeting all the regulatory requirements, as well as the commitments and conditions set out in the Appendix.

DATED at Calgary, Alberta, on April 16, 2002.

ALBERTA ENERGY AND UTILITIES BOARD

<original signed by>

T. M. McGee
Presiding Member

<original signed by>

G. J. Miller
Board Member

<original signed by>

M. J. Bruni, Q.C.
Acting Board Member

APPENDIX TO DECISION 2002-041

SUMMARY OF THE APPLICANT'S COMMITMENTS AND THE BOARD'S CONDITIONS

Commitments

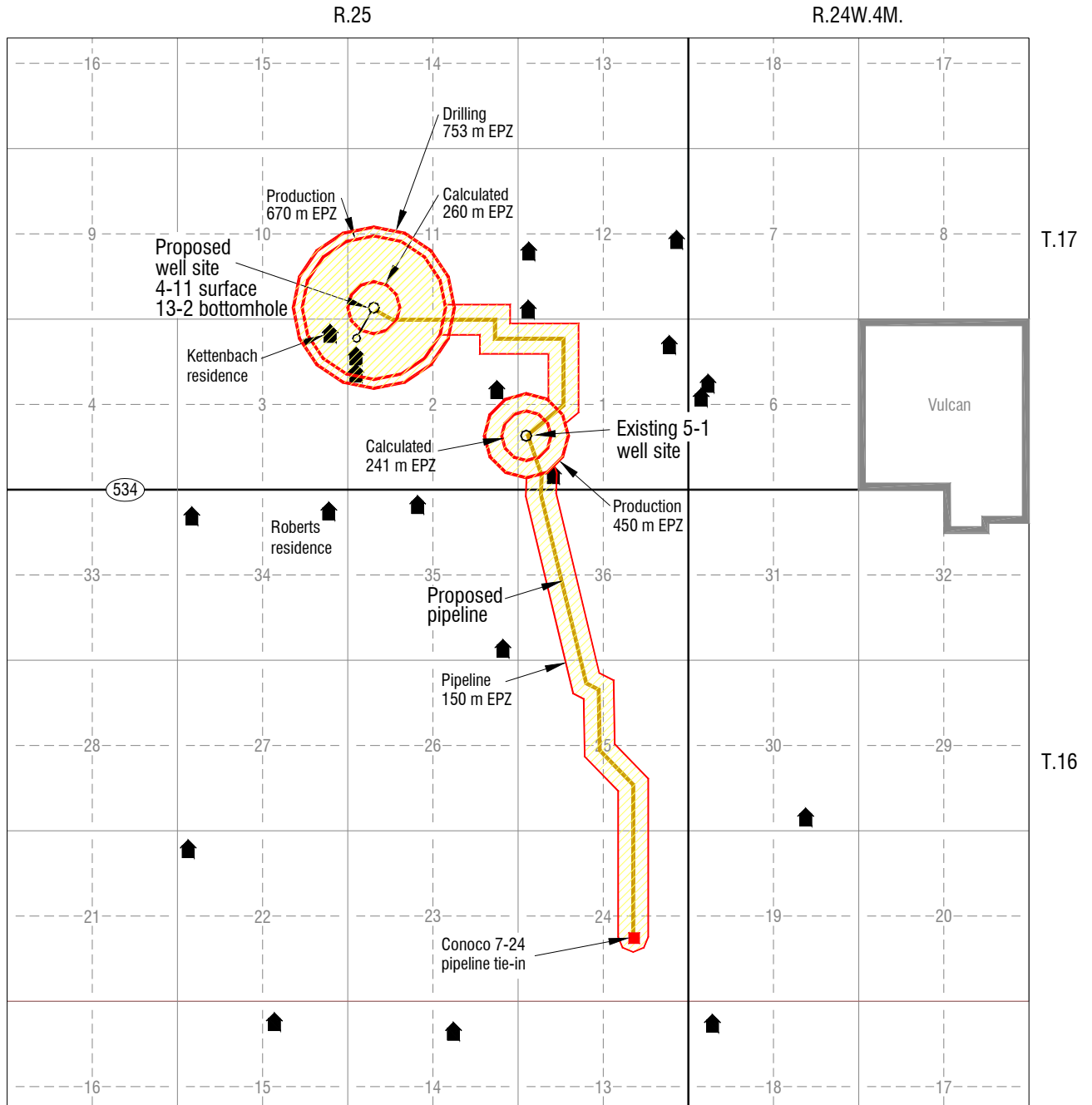
The Board notes that throughout the proceeding Compton undertook to conduct certain activities in connection with the proposed applications that are not strictly required by the EUB's regulations. It is the Board's view that when companies make commitments of this nature, they have satisfied themselves that the 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 an applicant, having made the commitments, to fully carry out the commitments or advise the Board if, for whatever reasons, they cannot fulfill a commitment. It is at that time that the Board will assess whether the circumstances of the failed commitments may be sufficient to trigger a review of the original licence. Affected parties also have the right to ask the Board to review a licence if commitments made by an applicant remain unfulfilled.

- 1) Compton commits to the use of an incinerator during the production testing of its 13-2 well.
- 2) Compton commits to install gas and H₂S detection at the well sites.
- 3) Compton commits to implement arrangements for the advanced notification of the Kettenbachs and Mr. Roberts of scheduled maintenance activities at its 13-2 and 5-1 well site surface locations that will involve depressurization and flaring. Such communications would occur 24 hours in advance either by e-mail or voice-mail.
- 4) Compton commits to pay for the testing of the Kettenbachs' and Mr. Roberts's water wells prior to and, if requested, after the drilling of the 13-2 well. This commitment is subject to the service provider being a reputable company acceptable to both the landowners and Compton, the water well test being for standard quantity and quality parameters, Compton being provided with a copy of the resulting data, and Compton being able to have a representative at the site during any testing.
- 5) Compton commits to provide ERP information packages to landowners within the applicable EPZs that are current just before drilling or production, as the case may be.
- 6) Compton commits to relocate the Kettenbachs immediately prior to the proposed 13-2 wellbore being open to the sour zone during drilling, as well as during the production testing of the well. This commitment is subject to reasonable terms of relocation being worked out with the Kettenbachs in advance.
- 7) Compton commits to participate in future multistakeholder group meetings.

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.

- 1) The Board directs Compton to ensure that the flares are designed and operated so that flare emissions from uncombusted sour gas does not result in off-lease odours. If repeat off-lease odours are traced to poor flare performance, the Board may require Compton to adopt measures to ensure adequate combustion of the sour gas.
- 2) The Board directs Compton to ensure that gas and H₂S detection, reporting, and correction procedures are specifically included in its operating practices and in any third-party operations contracts.
- 3) The Board directs Compton to provide a summary description of its operations and facility integrity (maintenance) management system for the proposed project prior to initiation of operations at the 4-11 and 5-1 batteries. The report must include contact information that will be provided to local residents and a description of Compton's procedures for responding to public complaints. The report must detail how any arrangements with third-party operating contractors will address Compton's operations management system and procedures for responding to public complaints.
- 4) The Board directs Compton to conduct an exercise of its drilling ERP prior to entering the sour zone and of its production operations ERP prior to placing the 13-2 and 5-1 wells on production. The Board further directs Compton to afford the public and EUB staff the opportunity to actively participate in both these exercises. The Board directs Compton to test all key components of its ERPs, including chain of command, public notification, communications equipment, and linkages, including outside services, evacuation procedures, and ignition procedures, to satisfy EUB staff that the systems are in order for immediate implementation. Further, the Board directs Compton to satisfy EUB staff that the exercise was successfully carried out prior to entering the sour zone of the 13-2 well.



- Legend**
- Well sites
 - Pipeline
 - Calculated, drilling, and production emergency planning zones (EPZs)
 - ▲ Residence

Emergency Planning Zones
 Applications No. 1084839, 1084841, and 1076136
 Compton Petroleum Corporation

Decision 2002-041