



Visual Simulation: Ressources Falco Ltée

Highlights

Inquiry and Public Hearing Report

Report No. 381 | Horne 5 project in Rouyn-Noranda by Ressources Falco Ltée

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Background to BAPE's Mandate

On July 18, 2024, the ministre de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs, Benoit Charrette, mandated the Bureau d'audiences publiques sur l'environnement (BAPE) to investigate and hold a public hearing on the Horne 5 project in Rouyn-Noranda, carried out by Falco Ressources Ltée. The President of the BAPE, Alain R. Roy, appointed a Commission of Inquiry, which began its mandate on August 26, 2024, for a maximum four-month period.

The Project

Ressources Falco is planning to mine a polymetallic deposit containing gold, silver, copper and zinc, located in the heart of the city of Rouyn-Noranda, in the Abitibi-Témiscamingue region. The deposit extends vertically from 650 m below the surface of the Horne Smelter, a metallurgical plant processing mainly copper, to a depth of over 2,000 m. It lies beneath the former Horne mine, operated by Noranda Inc. from 1926 to 1976, and is surrounded by the former Quemont, Chadbourne, Joliet and Donald mines.

Scheduled to start up in 2028, the project would be divided into four main phases. First, pre-production would last between 2 and 3 years and would include the construction of the infrastructure required to operate the deposit, as well as a running-in phase. Mining would then take place in two phases: a 2-year phase without tailings management facilities (TMFs), and a 13-year phase with TMFs. This would be followed by a 3-year reclamation and restoration period, and a minimum 10-year environmental monitoring and follow-up program.

To carry out its project, Ressources Falco would build a mine complex (CMH5), including an ore processing plant, on the site of the former Quemont mine; TMFs on the site of the existing Norbec tailings facility; a network of pipes to transport recirculating water and tailings between the CMH5 and the TMFs; and a freshwater pipeline to supply the CMH5 from Lac Rouyn.

Over the 15-year mine life, Ressources Falco expects to extract 80.9 Mt of ore, or an average of 15,500 t/d. The company estimates that the project will require the hiring of approximately 900 people during construction, and 500 people during operation. Capital expenditures are estimated at \$1,081 million, while operating costs would be \$1,078 per ounce of gold in Canadian dollars. Finally, costs associated with site redevelopment and restoration at the end of operations are estimated at over \$133 million.

Project Background

The Horne 5 project is notable for its location. The proposed mine would be located in the city, directly beneath the Horne Smelter. It should be recalled that Rouyn-Noranda is currently experiencing an environmental crisis marked by persistent contamination, particularly by arsenic. This has raised serious concerns about public health and environmental quality. In addition, the gradual relocation of residents to create a buffer zone near the Horne Smelter bears witness to the scale of the environmental and health challenges facing the town and its population.

Information and Consultation Activities

Both parts of the public hearing were held in Rouyn-Noranda. During the first part, the Commission held 5 sessions from August 27 to 29, 2024, during which the project initiator and resource people, including representatives of government departments, agencies, the city and companies, answered questions from the public and the Commission. The second part allowed participants to express their opinions on the project over 5 sessions held between September 30 and October 2, 2024. In addition, at the request of the Long Point First Nation, the Commission held two sessions in the Winneway indigenous community on October 3, 2024. These meetings gave citizens the opportunity to get answers to their questions and share their views on the project. In all, the Commission received 96 briefs, 44 of which were presented at the meeting, and 4 comments, plus 7 verbal opinions (Appendix 1).

Public Opinions and Concerns

Many citizens, organizations, businesses and First Nations expressed their views on the project at the public hearing. Almost all participants were from the Abitibi-Témiscamingue region, with the exception of a few national groups and associations. The arguments presented were varied, both in favor and in opposition to the project. The opinions and concerns raised focused mainly on issues relating to the following aspects:

- 1) the justification for the project, in particular the relevance of mining gold and the contribution of zinc and copper to the energy transition;
- 2) the location of the mine in an urban environment, the vibrations associated with its operation and the risks of induced seismicity;
- 3) environmental impacts, including effects on air quality, use of disturbed sites surface and groundwater;
- 4) psychosocial repercussions, such as cohabitation with the Horne Smelter, the fatigue of mobilized citizens and the erosion of public confidence in the authorities;
- 5) socio-economic effects related to employment, housing and local services;
- 6) local economic spin-offs, both positive and negative;
- 7) the impact on a territory claimed by First Nations and on the traditional activities they practice there.

The Commission's Main Views

In its report, the Commission of Inquiry makes a number of observations and opinions regarding issues relating to water, air quality and public health, vibrations and induced seismicity, the sharing of responsibilities between Ressources Falco and Glencore Canada and financial guarantees, the capacity of the host environment and justification for the project.

Water-Related Issues

The Commission of Inquiry has paid particular attention to water issues, as the region is marked by the presence of several former mining sites, some of which continue to contaminate the water. Among the 13 opinions it formulated on this subject, several called for specific action on the part of the project initiator to ensure rigorous management of environmental repercussions. The Commission believes that the Ministry responsible for the Environment should require Ressources Falco to conduct in-depth hydrological studies on alternatives to water withdrawal from Lake Rouyn; to update the hydrogeological modeling study of the tailings management facilities (TMFs), including a worst-case scenario analysis of contaminant mobility; the presentation of a design plan for TMFs that would avoid the redirection of contaminated runoff from the old former Vauze mine site to Lake Waite or any other water body; the completion of an in-depth analysis of the consequences of dike breaches on the city's water treatment infrastructures.

Air Quality and Public Health

The Commission of Inquiry then turned its attention to air quality, because of ongoing concerns about industrial air emissions and their impact on public health, a long-standing issue for the city of Rouyn-Noranda. Some of the six opinions it has formulated in this regard highlight gaps in available data, which limit the scope of its analysis. In particular, it points out that the absence of an assessment of the total exposure of the population of Rouyn-Noranda, integrating emissions from the Horne 5 project and those already present, constitutes a major shortcoming, and that the Ministry responsible for the Environment should demand a complete and integrated assessment. It also believes that the Ministry should initiate reflection on the integration of mass balance of atmospheric emissions, as a complement to current air quality modeling methods, to enable a more detailed, comprehensive and tailored analysis of environmental impacts. Finally, regarding section 197 of the *Regulation respecting the purification of the atmosphere*, the Commission believes that the Ministry's strict interpretation makes it difficult to foresee the Horne 5 project's compliance with this regulation.

Vibration and Induced Seismicity Issues

The Commission of Inquiry also analyzed the issues surrounding vibrations generated by blasting and induced seismicity. It considers that these phenomena raise important safety issues that must be rigorously documented. On this subject, the Commission issued 11 opinions, a summary of which is given below. In particular, it believes that the Ministry responsible for the Environment should require Ressources Falco to carry out a complete assessment of the potential impact of vibrations generated by blasting operations planned for the Horne 5 deposit, and by possible seismic shocks, on the Horne Smelter's infrastructure and on equipment at the Regional Radiation Oncology Centre. The Commission also stresses that measures to prevent potential repercussions should be determined by Ressources Falco in consultation with the competent authorities in charge of these facilities and with the Ministry. Finally, the Commission believes that if, despite the implementation of mitigation measures, vibrations could compromise the integrity of facilities and equipment, the project should not be authorized.

The Sharing of Responsibilities between Ressources Falco and Glencore Canada and Financial Guarantees

The Commission of Inquiry is continuing its examination, focusing on the sharing of responsibilities between Ressources Falco and Glencore Canada, owner of the Horne Smelter, and on financial guarantees. It has formulated seven opinions in this area, highlighting the information, assurances and guarantees that the authorities should obtain. In particular, the Commission considers that the government should ensure that it has a detailed study of disaster risks, accompanied by an estimate of the costs associated with potential damage, whether in terms of personal injury, environmental degradation, damage to public infrastructure or community repercussions. It also believes that, to avoid the State or the City of Rouyn-Noranda having to bear expenses in the event of a disaster, the Ministry responsible for the Environment, the Ministry responsible for the Natural Resources and the City of Rouyn-Noranda should ensure that sufficient insurance and financial guarantees are in place to cover the costs that could be incurred if the worst-case scenario were to materialize. Any amounts pledged in this way should be exempt from seizure, in the same way as those required by the *Mining Act* for rehabilitation and restoration work once mining activities have been completed.

Host Environment Capacity

The Commission of Inquiry also took into consideration the capacity of the host environment. In this regard, it formulated 10 opinions, dealing in particular with the social climate and the capacity to receive the influx of workers. The Commission notes that the social climate in Rouyn-Noranda is fragile and tense and considers that it is not currently conducive to hosting the Horne 5 project. It stresses that the city's socio-economic situation, characterized by tensions over labour availability, housing and access to local services that could persist for several years, makes it difficult to integrate a project that would generate additional pressure in these areas. It recommends that the Ministry responsible for the Environment require the initiator to conduct a thorough assessment of the potential influx of outside workers into the community, directly or indirectly related to the deployment of its project, for both the construction and operation phases. It also recommends that Ressources Falco be required to provide a structured action plan detailing measures to reduce the social impacts of the project, including an assessment of the expected effects of these measures, as well as an estimate of the costs associated with each phase of the project. These costs should be incorporated into the financial framework of the Horne 5 project. In the absence of such an action plan, the Commission believes that the social effects could not be considered reduced, mitigated or compensated.

Project Justification

Finally, the Commission of Inquiry examined the project's justification. It examined the three main arguments put forward by Ressources Falco in this regard: the contribution to government objectives concerning critical and strategic minerals, the possibility of using existing infrastructures and already disturbed sites, and the expected economic spin-offs for Rouyn-Noranda and Abitibi-Témiscamingue. It has formulated 14 opinions on this subject. Regarding the first argument, the Commission considers

that the Horne 5 project would have a limited effect on the supply of Quebec's zinc and copper processing facilities, two critical minerals. Its contribution to the objectives of the *2020-2025 Strategic and Critical Minerals Development Plan* and, more generally, to energy transition and decarbonization would be modest. Regarding the second argument, the Commission, like the Ministry responsible for the Environment, considers that, while the use of an already disturbed site for tailings disposal and the reuse of existing infrastructure at the Horne 5 mine complex are desirable environmental impact mitigation measures, they cannot be considered an argument supporting the justification of the Horne 5 project. Regarding the third argument, the Panel believes that, beyond the positive spinoffs for local mining industry players, there is currently no sufficiently detailed economic overview to determine whether the Horne 5 project would truly benefit the Rouyn-Noranda community or Quebec, and if so, to what extent. The Commission also considers that, to enable a complete assessment of the economic effects of the Horne 5 project, the Ministry responsible for the Environment should require Ressources Falco to carry out a cost-benefit analysis integrating not only the economic spin-offs, but also the costs and impacts related to the project. Finally, the Commission considers that the initiator has failed to convincingly demonstrate justification for its project.

Conclusion

In conclusion, the Commission of Inquiry considers that the Horne 5 project, as presented, does not meet the minimum requirements in terms of safety, public health, environmental protection and cost internalization. Consequently, it considers that this project is not acceptable in the current state of knowledge brought to its attention.