

Novador Gold Mine Project – IAAC application – Comments on Initial Project Description (IPD)

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Novador Gold Mine Project, Proponent - Probe Gold Inc.

IPD - Initial Project Description of a Designated Project

Issues of Concern Summary

Impact of a flood or wildfire on the mine operations, flooding events, projections into the near future

Potential for climate change related issues in this boreal forest region where the mine is proposed, particularly recent wildfires and future wildfires

Emergency preparedness and response, accidental events/malfunctions

Concern about the increased capacity of the mine

Follow up environmental studies

Supreme Court of Canada majority opinion/decision is that Ottawa's Impact Assessment Act (IAA)

This application of submitting comments on the Initial Project Description of a Designated Project (IPD) for the Novador Gold Mine Project is based primarily on the potential impacts of this project related to emergency preparedness and response and potential resulting malfunctions, both through error or lack of detailed plans. The focus is primarily on these impacts resulting from the increasing risk of climate change.

All potential scenarios should be accounted for including recent boreal forest wildfires and flooding,

Any dangerous materials that are stored at the mining site could result in perilous results in the event of either wildfires or flooding events.

Wildfire risk management plans should be part of the emergency preparedness and response but have not been found in the detailed IPD as of yet.

There does not appear to be a section in the IPD on emergency preparedness and response, mitigation strategies and the taking into account of any residual risk as a result of these.

Identifying any natural gas pipelines that are in close proximity to the project area should be done.

A review for the presence of any man-made or natural dams in the zone of the project will be done to assess if these, pose any emergency issues. Beaver dams have been referenced in the IPD.

Potential for climate change related issues in this boreal forest region where the mine is proposed, particularly recent wildfires, must be elucidated.

The effects of the environment on this project at this crucial time with climate change impacts increasing over time is of utmost importance.

A complete climate change risk assessment should be completed before project approval.

Comments/questions pertaining to the Operation Phase of the Novador Gold mine.

Concern about the increased capacity of the mine resource

“Estimation of the Maximum Production Capacity of the Project and Description of the Production Processes” original resource estimation – page 14 of 35 pages

“Un nouvel estimé des ressources sur la propriété du secteur Monique a été publié récemment et démontre une augmentation de plus de 23 millions de tonnes de minerai et de 1 million d’once d’or comparativement à la ressource minérale de 2021. Un nouvel estimé global pour le projet minier Novador est prévu pour le deuxième semestre de 2023.” page 31 of 115 pages, increased resource estimate

“A new resource estimate on the Monique sector property was recently published and demonstrates an increase of more than 23 million tonnes of ore and 1 million ounces gold compared to the 2021 mineral resource. A new overall estimate for the project Novador mining is planned for the second half of 2023.”

Translated from French IPD, page 31 of 115 pages translation

Based on the description of the capacity of this mine, 20,000 tpd or less, the amount of cyanide will be predicted. What will be the impact and potential environmental issues of the increased mine capacity and cyanide use?

Taking into account of the new yields of the mine, as both the underground mines and the open pit become progressively deeper and wider what will be the amount of cyanide needed?

How will this affect the effluent discharge amounts?

Concerns of increased cyanide use in the first phase with the proposed enlarged mine site.

9. List of Activities, Infrastructures, Permanent or Temporary Structures and Physical Works

“Gold production will commence through open pits and transition to ramps and underground mining operations as it progresses. The estimated project life is 12.5 years, with an anticipated average daily mining rate of approximately 20,000 tonnes of ore and average production of 207,000 ounces of gold per year.” page 12 of 35 pages

10. Estimation of the Maximum Production Capacity of the Project and Description of the Production Processes

“Probe Gold expects to develop the deposits at an average rate of about 20,000 tonnes of ore per day (or 7.3 million tonnes of ore on average per year) over a period of approximately 12.5 years. The maximum ore input capacity projected at the ore processing plant for the project would be 24,000 tonnes per day.

The ore processing plant would include two distinct phases. The first phase, the initial construction, would include the typical recovery steps for gold mining, while the second phase would increase the crushing capacity of the processing plant and sort out mineralized waste rock and low-grade mineralization.” page 14 of 35 pages

“The first phase, initial construction, would include the stages of typical recovery for gold mining and would include the following main components:

Ore crushing;

Ore storage under a dome to feed the concentrator at a rate constant;

Grinding with a ball mill and separation of particle sizes by cyclone;

Gravity recovery of ball mill discharge by a concentrator by semi-continuous centrifugal gravity, followed by intensive cyanidation of the concentrate by gravity and electrolytic extraction of the leach solution;

Cyanide leaching and adsorption on activated carbon pulp;

Recovery of gold loaded on activated carbon by acid washing, followed by elution, electrowinning and ingot casting;

Regeneration of activated carbon for recycling in the process;

Destruction of cyanides in mine tailings using the SO₂/O₂ process;

Densification of mine tailings in thickeners;

Filtration of mining tailings;

Deposition of mine tailings;

Storage and distribution of reagents. English translation of page 31 of 115 pages

Concerns about the vast array of **wetland and bog area** that the mine site occupies: These concerns relate to ability to access the area in the case of an emergency, mainly flooding events.

Hydrologie - Hydrology

*“The Colombière River and some of its tributaries receive water from the Pascalis and Courvan (SNC-Lavalin, 2020a). They are part of the watershed of the Bourlamaque River which covers an area of 683 km² (MDDELCC, 2017). The Bourlamaque River watershed is itself located in the upper part of the watershed of the Harricana River, which flows into ultimately in James Bay. In the Pascalis and Courvan sectors, surface water flow from east to west through a **network of wetlands** and small streams to the Lac de la Colombière located 8 km to the west (Richelieu, 2020a). There is no lake in the areas Pascalis and Courvan, but **beaver ponds** are present along certain watercourses. There Most of the tributaries of the Colombière River are small streams with shallow depth and permanent or intermittent flow. Some watercourses appear to be of anthropogenic origin (ditches from old mining operations).*

*The Tiblemont River receives water from the Monique sector. In total, 10 rivers are present in this sector and are dependent on the Tiblemont River (AECOM, 2011). This river is a tributary of Lake Tiblemont which flows into James Bay via the Bell River (Richelieu, 2020b). According to the average of three hydrological stations located near the project site, the low flow recurring for 2 years over 7 consecutive days (Q2-7) of the Tiblemont River would be 175.7 l/s or 15,180 m³/day. The peak flow or maximum flow of this watercourse is estimated at 49.3 m³/s (Richelieu, 2020b). A **peat bog** (#830106) is listed in this sector of the project (Buteau, 1989). All the ponds present in the Monique sector are due to the presence of **beaver dams**.”* page 55 of 115 pages IPD - translated from French

Follow up **environmental studies**

What follow up environmental studies are planned and what components will they include?

What will the extent of the plans be, and what part of the mining operation will they include?

The assumption is that all aspects of the mining project would be included in yet to be determined plans.

Potential **Alternatives** to the Project

*“The only alternative to the project is **not to carry out the Novador mining project**. There is no other way to extract the ore present in the subsoil than by developing a mine. In this context, there is no potential alternative solution to the project.”* page 21 of 35 pages English IPD

Therefore, if this project goes ahead, careful attention must be paid to each individual aspect of the mining process to ensure that safety precautions are taken. Alternatives to the individual aspects of the Novador Gold Mine Project must also be carefully considered.

The **Supreme Court of Canada recent decision**, IAA and Novador Gold Mine Project

The **Supreme Court of Canada** majority opinion/decision is that Ottawa's Impact Assessment Act (IAA), formerly Bill C-69, is largely unconstitutional. What impact will this decision have on any aspects of the Novador Gold Mine Project?

Probe Gold has indicated that they are working closely with IAAC to mitigate any changes to their project in reference to this recent judgement. Will Probe Gold Inc. be sharing these updates with the public?