



Bulk sampling at James Bay Mine Project site

## Exemption request

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## 1. INTRODUCTION

Galaxy Lithium Canada Inc. (GLCI) is currently developing the James Bay Lithium Mine Project (“the Project”), in northern Quebec. To better understand the behavior of the ore, GLCI wants to extract two samples of 120 tonnes of ore and waste rock, and have it processed in a circuit similar to the one proposed for the Project. The location is not yet chosen. The intent is to optimize the circuit and choose the best equipment for this ore. The processing of the waste rock sample aims on segregation tests and also to choose the best equipment.

As the project is a study prior to a mining project, the exemption to the impact assessment procedure defined in article 153 of the Environment Quality Act (CQLR c. Q-2) must be attest by the authorities. This document, written by the promoter’s team, is intended as a request for exemption from this procedure with respect to this study prior to the project.

## 2. LOCATION

The Project is in the James Bay territory and is subject to the James Bay and Northern Quebec Agreement. More specifically, the project is in the Cree Nation Eastmain territory, at km 382 of the Billy Diamond Highway (formerly known as the James Bay road), on the west side. The geographic coordinates of the mine in UTM (zone 18, NAD83) are as follows:

— X : 358 891

— Y : 5 789 180

Samples are expected to be collected from the site of the proposed pit in an area that is currently a rock outcrop (Figure 9.1).

## 3. PROJECT DESCRIPTION

To extract all necessary samples, while ensuring minimum environmental impacts, the following steps will be completed:

1. Levelling/grading the existing access road to ensure the material transport trucks can travel safely. This will be done using a grader and possibly the addition of granular materials. With the section of path measuring approximately 700 m long and 4 m wide, the maximum volume of borrow material required is estimated at 1000 m<sup>3</sup>. The materials could come from the overburden of the defined sample areas, or from an existing borrow pit that is adjacent to the site. The existing borrow pit has an expired operating license (BNE) but could easily provide the necessary volume of material (Figure 9.2).
2. Cleaning two outcrop areas. Removal of organic material and granular material. Organic material will be moved to an area already covered with organic material. Granular material will be used for the improvement of the access path.
3. Drilling for blasting and blasting of two zones of 500 m<sup>3</sup> each, one in spodumene pegmatite (ore), and the other in basalt metamorphosed into amphibolite (waste).
  - Transported to Matagami or somewhere in the Abitibi region where it will be crushed and put in a 1m<sup>3</sup> bag,
  - Then transferred to the Port in Trois-Rivières and,
  - Shipped to Australia or another concentrator for testing.

4. Blasting can be imprecise and there is a strong possibility that broken blocks of waste rock and ore will remain on the blasting site. As the tests carried out in the laboratory on these materials, provide for a leachate with concentrations of certain metals that do not meet the criteria for resurgence in surface water. GLCI plans to construct a water collection platform for drainage water from the ore and waste rock that will be broken by blasting, but not transported off site.
  - The platforms will be made impervious with waterproof geomembrane (figure 9.3).
  - Rainwater will be collected and sent to a tank, where it will be sampled and analyzed for metals. Before being released into the environment, the water will be treated with lime to precipitate the metals (if necessary). The treatment sludge will be disposed of according to its chemical composition, at an authorized site.
  - The site of the platforms being located in the footprint of the anticipated pit, this construction will be dismantled before the start of construction work on the mine project.

#### 4. BIOPHYSICAL AND HUMAN ENVIRONMENTS

This project is part of the feasibility study and further optimization of the Project. The location is on the border of the deposit, which is included in the Environmental and Social Impact Study (ESIA) that was submitted to the authorities in October 2018. The bulk sampling sector is a rock outcrop with veneers of clay, till and peat. No special status plant species have been identified in the territory of the ESIA.

The area is in the RE2 trapline. GLCI has an ongoing relationship with the RE2 tallyman and will inform the family of the work program.

#### 5. APPREHENDED IMPACTS OF THE PROJECT

Extracting samples will generate approximately the same volume of broken rock as the samples themselves. These broken rocks, which have more surfaces exposed to weathering, will be moved on a waterproof membrane to ensure the collection of drainage water and its treatment if necessary.

If treatment of the collected water is necessary, the treatment sludge will be considered residual material from the Project and disposed of according to its chemical characteristics.

#### 6. INFORMATION AND PUBLIC CONSULTATION

GLCI plans to notify the Eastmain band council of the work program, as well as the RE2 Tallyman. Any comments or suggestions related to the work program will be taken into consideration.

## **7. IMPLEMENTATION SCHEDULE**

GLCI intends to complete the work program in the spring of 2021. If the work program is not subject to the COMEX impact review procedure, it will still require an approval of compliance declaration from MELCC, as well as the authorization for bulk sampling from MERN prior to starting the work. These authorizations can normally be obtained within one month.

The scope of the work program is considered small, it is then preferable to do it at the start or end of the season to ensure access to contractor, workers and equipment needed to carry out this work.

Moreover, to ensure the collection of drainage water help Galaxy in improving knowledge of the reactivity of the waste rock, the work must be carried out in the spring or at the start of the summer season. Otherwise, the collection of drainage water will not be long enough, freezing season starting in October in the area..

The duration of the work is estimated at three weeks. Drainage water monitoring will continue until the frost. If the work cannot be done before the frost period, the water collection component of the work program will be delayed or canceled.

## **8. SUBSEQUENT PHASES AND RELATED PROJECTS**

This project is being carried out as part of the feasibility study for the James Bay Lithium Mine Project.





## 9. FIGURES











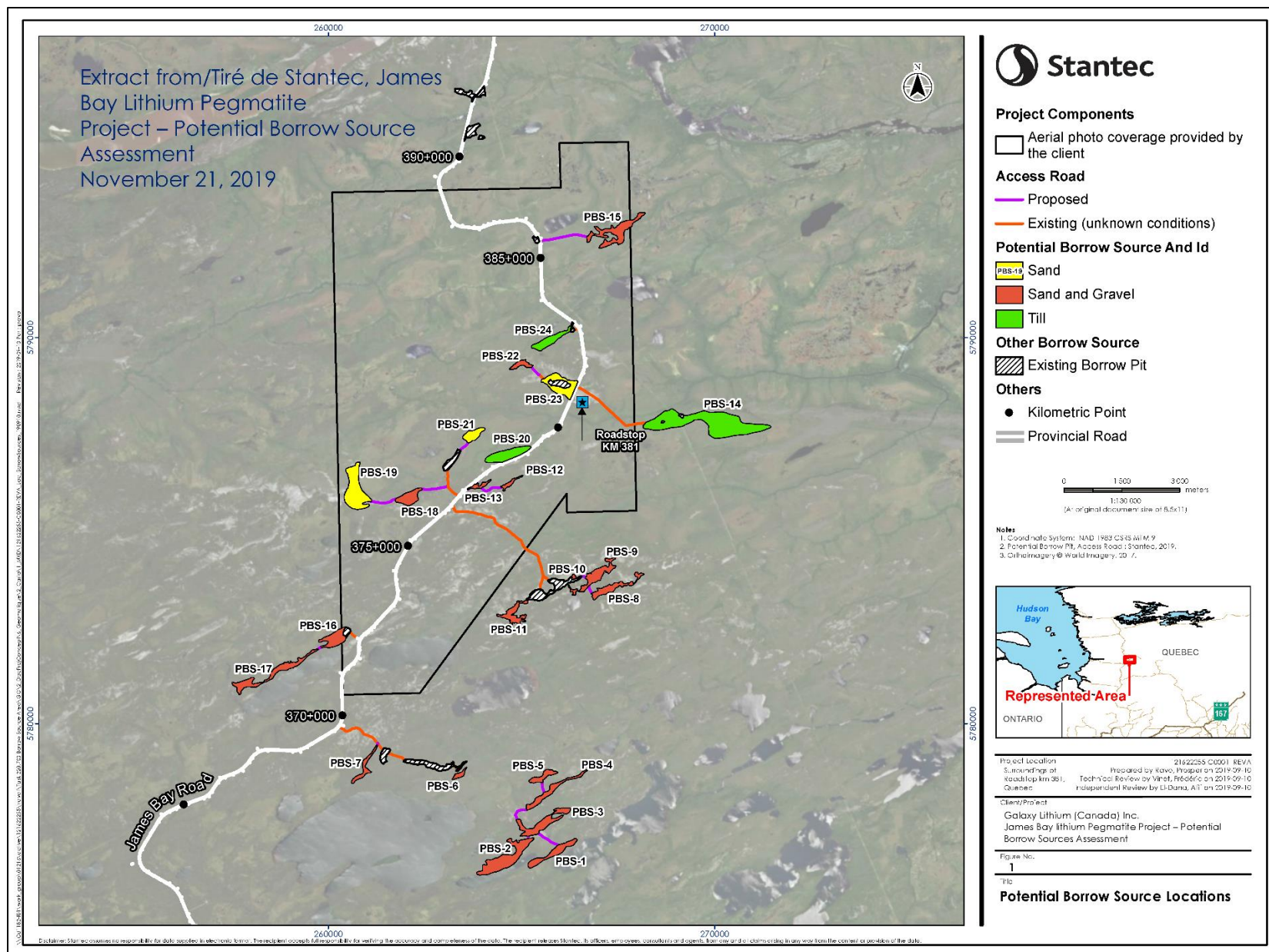


Figure 9.2 Location of borrow pit adjacent to site (PBS-23)



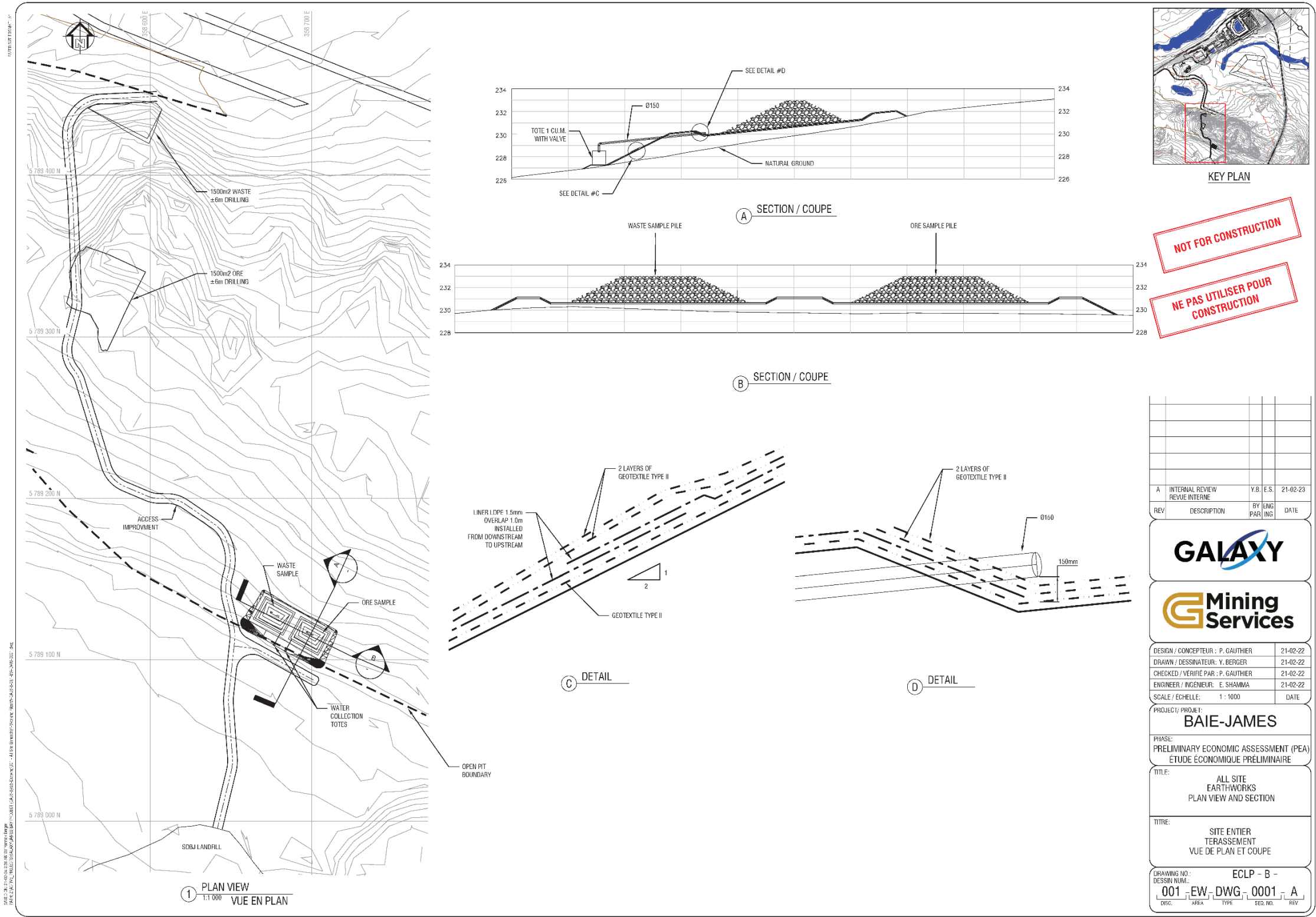


Figure 9.3 Drainage water collecting platforms

