

September 5, 2019

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RE: Letter regarding NIRB file 11MN034, Project Certificate No. 006, Term and Condition 8, 20 and 50 update.

Dear Ms. Sophia Granchinho and Ms. Annie Tattuinee,

I am writing this letter in regards to my current work with Agnico Eagle Mines Limited (AEM) at their Meliadine mine site near Rankin Inlet, Nunavut (NIRB file number 11MN034, Project Certificate No. 006). Agnico Eagle entered into a Natural Sciences and Engineering Research Council of Canada Collaborative Research and Development grant with the University of Saskatchewan in June 2018. The purpose of this grant was to provide information to AEM to support the development of a reclamation and revegetation program for their arctic tundra site required by condition no. 41 of the Project Certificate for Meliadine (i.e. : "Prior to the commencement of operations, the Proponent shall develop a progressive re-vegetation program for disturbed areas that are no longer required for operations, such program to incorporate measures for the use of test plots, reseeding and replanting of native plants as necessary."). At the request of AEM, we also included community engagement and youth education as key project deliverables and proposed to provide youth employment as research assistants and youth

education programs in summer 2019 and 2020. The project deliverables related to our work are included in Project Certificate No. 006 under Term and Condition 8, 20 and 50 (see attached document).

There have been significant setbacks in our work with AEM and because this work is included in the Terms and Conditions, I felt a responsibility to report these to the NIRB and KIA directly. As planned, we installed a revegetation trial on the Meliadine site in June-July 2019. The trial included transplanting of native tundra through different techniques and was intended to be used for long-term (10 plus years) research. Unfortunately, by August 2019, AEM informed us that one-third of our trials had been destroyed. The information we were provided concerning this loss suggested that the locations approved by the Environment Department had not been communicated to the Construction Department. The loss of one-third of our active restoration trial will have the following consequences for effectively delivering information to meet Term and Condition 20 and 50:

- 1) **Limited spatial distribution** - The trial was divided between three locations on-site to maximize our ability to examine and account for variability across the Meliadine site. One location was destroyed leaving two remaining locations that are approximately 800 m apart. The now limited spatial distribution of the revegetation trial will limit our ability to extrapolate to conditions across the Meliadine site, as well as other northern locations.
- 2) **Limited soil conditions** - Information on the influence of organic matter and mineral soil depth on tundra plant transplantation and survival will be limited. The three locations selected for the trial had different soil conditions that we intended to compare. We will now have less information on the role of soil conditions in tundra revegetation.
- 3) **Less certainty regarding tundra vegetation response** - In designing our revegetation trial we determined the number of treatment replicates needed to provide sufficient power to determine biologically and statistically significant changes. The loss of one-third of our replicates will have a major impact on the certainty with which we can make recommendations regarding the response of tundra vegetation and the overall success of this revegetation approach.

We were also unable to offer the youth education program this year. Our team had planned an education program in Baker Lake from June 24 to 27th, 2019. We had spent the winter and spring of 2019 making community contacts, sending our project coordinator to visit Jonah Amitnaaq Secondary School in Baker Lake, and preparing curriculum. One week prior to the launch of our program AEM informed us that they did not want us to offer the program in Baker Lake, NU but rather in Rankin Inlet, NU. We were able to accommodate their request; however, due to the caribou migration we were subsequently unable to leave the mine site during the scheduled education program. Since no education program was provided in 2019, we have not fulfilled our portion of Term and Condition 8 to-date. Our intention is to offer education programs in summer 2020 and 2021 in Rankin Inlet.

Despite these setbacks, we are committed to continue our work with AEM and provide the best information and education possible. However, any further loss of the revegetation trial will prevent the research team from being able to provide scientifically sound data and recommendations. I am concerned with the on-going problems our research team is having in communicating effectively with AEM. Given the current level of collaboration, I am also concerned that long-term monitoring of the revegetation work may not occur and incorporation of our recommendations during progressive reclamation or site closure may be limited.

As a researcher and educator I am dedicated to providing information that can assist industries in northern Canada to reduce and mitigate their impact. I also believe that I have a strong responsibility to the regulatory bodies and local communities where I work. It is essential that industry, government, researchers, and local communities work together closely for everyone's mutual benefit. My intention in sending this letter is to ensure there is transparency and communication regarding our work. I am happy to discuss any of these issues further if needed.

Sincerely,

A handwritten signature in black ink, appearing to read 'K. Stewart', with a stylized, cursive script.

Katherine Stewart

Principal Investigator
Assistant Professor, Soil Science
University of Saskatchewan