The background of the cover is a landscape photograph. On the right side, a tall, balanced stack of dark, flat rocks (a cairn) stands on a rocky outcrop. To the left, the sun is setting or rising over a valley, creating a bright lens flare and casting a warm, golden glow across the scene. The sky is a clear, pale blue. In the upper left, three concentric, orange-colored circular lines are drawn, partially overlapping the text.

Raglan Mine

Closure Plan Subcommittee

Annual Report 2018/2019

RAGLAN MINE
A GLENCORE COMPANY

The first

Annual Report for the **Raglan Mine Closure Plan Subcommittee** for the years of 2018 and 2019

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About the subcommittee

Working Together

Through discussions with its Inuit partners from Salluit and Kangiqsujuaq, Raglan Mine came to realize that some of their main concerns were in regard to mine closure practices, including tailings management.

Raglan Mine decided to address these concerns by including its host communities in the reviewing process. This will give Raglan Mine the opportunity to improve the concept alongside its Inuit partners and work towards an integrated closure plan that is both environmentally and socially acceptable.

Closure Plan Subcommittee

Although the mine is expected to remain operational for at least another 20 years, the Closure Plan Subcommittee was launched in March 2018 to establish and maintain a dialogue with the mine's Inuit partners about mine closure and integrate the traditional knowledge of the communities of Salluit and Kangiqsujuaq into the closure plan for Raglan Mine.

The first meeting of the Closure Plan Subcommittee occurred in March 2018 and a total of five meetings across 11 days have taken place through 2018 and 2019. Through these meetings, Raglan Mine employees, community and regional representatives, and university researchers are collaboratively developing a plan for the eventual closure and remediation of Raglan Mine.

The Closure Plan Subcommittee benefits from being multi-stakeholder, organized far in advance of closure, and made up of members who are willing and committed to achieving the goals that have been set. Through the work of the subcommittee, there are consistent opportunities to learn from one another, apply a wide variety of expertise (Inuit, industry, and academic), and maximize the strengths and capacities of Inuit communities.

The members of the Closure Plan Subcommittee include Inuit partners from both Salluit and Kangiqsujuaq, representatives of Makivik Corporation and Raglan Mine, a technical expert and a researcher from TERRE-Net (Towards Environmentally Responsible Resource Extraction Network).

Vision and mission statement

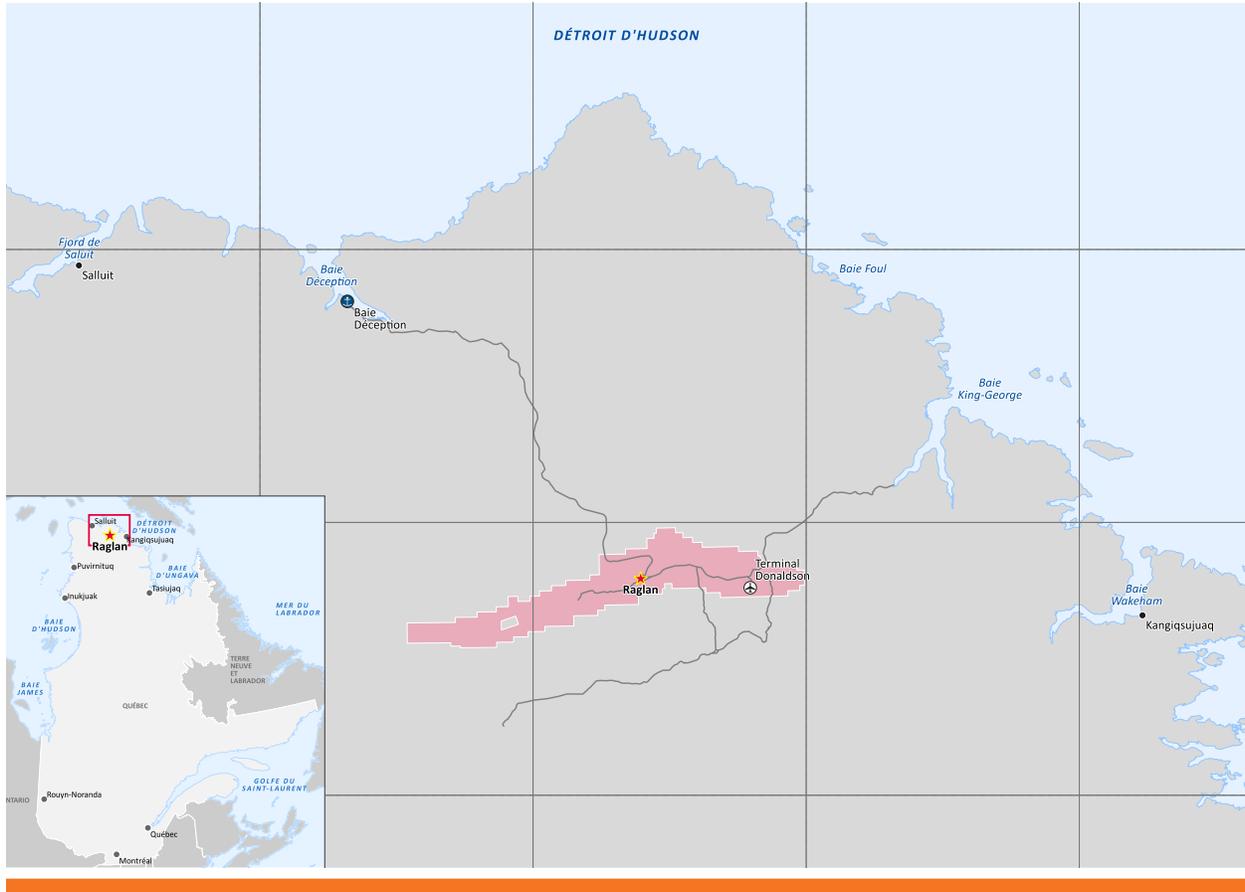
Vision statement

We will strive for a mine closure outcome that will safeguard Inuit land use, resources, and ecological integrity, create benefits and build capacities in Salluit and Kangiqsujuaq, and ensure the transfer of skills, knowledge, and values between Inuit and industry to ensure efficient, safe, and long-term solutions to closure and remediation at Raglan Mine.

Mission statement

The Raglan Mine Closure Subcommittee is a partnership within the Raglan Agreement that aims to provide assurances for safe water, land, and food resources, maximize community benefits, and contribute to a sustainable future for Salluit and Kangiqsujuaq by mitigating the negative social, economic, and ecological impacts of mine closure. This will be realized through the creation of culturally relevant closure goals and criteria and the integration of Inuit knowledge, enterprise, and values, scientific expertise, and industry know-how.





Roles and Responsibilities of Subcommittee Parties

Raglan Mine a Glencore company

As the industry signatory to the 1995 Raglan Agreement, Raglan Mine a Glencore company is interested in creating mutual benefits for both community and company stakeholders and developing Raglan Mine in an efficient and environmentally sound manner. Raglan Mine representatives on the subcommittee are responsible for:

- Ensuring compliance to Québec Government regulations and to the Raglan Agreement
- Ensuring a closure plan is submitted on time every 5 years, as regulations require
- Ensuring budget approval for subcommittee meetings and activities
- Managing the logistics of subcommittee meetings and activities for members and guests (travel, lodging, meals, etc.)
- Acting as co-chair

Inuit Communities

The Inuit communities represent the two villages of Salluit and Kangiqsujaq, who are signatories to the 1995 Raglan Agreement. As such, the Inuit communities are interested in the implementation of the Raglan Agreement, specifically with regard to community relations, compensation, Inuit participation in employment and training, Inuit contractors on site, and the environment. The Inuit community representatives on the subcommittee are responsible for:

- Ensuring compliance with the Raglan and Sivumut Agreements
- Ensuring that Inuit have a voice at the mine closure subcommittee level
- Ensuring that Inuit voices are reflected and addressed in the Raglan Mine closure plan
- Reporting back to the communities to ensure they are informed and have up to date information about mine closure
- Actively participating in workshops and visits to other mine sites
- Participating in university level training to become familiar with mining laws and regulations
- Lobbying the industry and government (including universities) for support for Inuit concerns related to mine closure and monitoring of the site after mine closure
- Acting as co-chair



Makivik Corporation

Makivik Corporation is the regional signatory to the 1995 Raglan Agreement and the political organization representing Nunavik Inuit. It is interested in promoting Inuit socio-economic development, particularly in Salluit and Kangiqsujaq, and monitoring Raglan Mine's environmental performances to protect the territories environmental integrity. Makivik Corporation representatives on the subcommittee are responsible for:

- Providing input and recommendations to the review, update, and amendment of the Raglan Mine closure plan
- Ensuring the Raglan Mine closure plan and post-closure programs are the most efficient, environmentally sound, and socially adequate as possible
- Ensuring applicable environmental laws and regulations are respected and implemented
- Validating that all available technical advances and innovations are being executed to minimize environmental impacts and to restore the land to its original state as much as possible
- Bringing awareness about the Raglan Mine Closure Plan Subcommittee and communicating relevant proceedings and findings to Nunavik Inuit



TERRE-NET

TERRE-NET is a network of university researchers working to develop and promote knowledge about the technical and social challenges associated with mine closure and reclamation. TERRE-NET member of the subcommittee is specialized on social aspects related to mining. The TERRE-NET expert on the subcommittee is responsible for:

- Participating in subcommittee meetings for at least the life of the TERRE-NET project
- Contributing expertise and input on closure and reclamation policy, especially as it related to social and community aspects
- Co-ordinating research activities and communications related to TERRE-NET/Raglan closure
- Supervising TERRE-NET graduate student participation and contribution to the subcommittee

Technical expert

The technical expert has a recognized expertise in mining engineering, mine waste management and mine site reclamation. The technical expert's role on the subcommittee consists in:

- Providing independent technical expertise on the science of mine site reclamation
- Increasing the technical capacity of subcommittee members in relation to the reclamation of mine sites
- Monitoring and reporting on technological advancements in the field of mine site reclamation
- Finding relevant references where necessary
- Preparing materials to help better understand the technical aspects of mine reclamation
- Finding experts to explain phenomena related to mine reclamation when the subject is outside of their field of expertise

Subcommittee members

SUBCOMMITTEE MEMBERS

Kangiqsujuaq Representatives	George Pilurtoot Jimmy Qarisaq
Salluit Representatives	Barbara Papigatuk Paul Papigatuk
Makivik Representative	Jean-Marc Séguin
Technical expert	Bruno Bussière, mine site reclamation expert, Université du Québec en Abitibi-Témiscamingue
TERRE-NET Representative	Arn Keeling, social reclamation expert, Memorial University
Raglan Mine Representatives	Amélie Rouleau Charles Levac Anna Angutigirk Alasie Arngak



From left to right (front row): Paul Papigatuk, Charles Levac, Barbara Papigatuk and Miranda Monosky (TERRE-NET observer)

From left to right (back row): Amélie Rouleau, George Pilurtoot, Jean-Marc Séguin, Guy Dufour (Raglan Mine observer), Jimmy Qarisaq, Évangéline Rivest (Raglan Mine observer), Bruno Bussière and Arn Keeling.

Major accomplishments for 2018/2019

Four main objectives have been set for the Raglan Mine Closure Subcommittee. Each objective has a set of actions to be completed by specific subcommittee members by specific dates. All of these actions have been compiled into a working document to ensure that we are moving towards each goal, which is reviewed at each meeting. These objectives are:

- Keep the communities well informed
- Develop the expertise of the subcommittee
- Establish clear governance structures for the subcommittee
- Review the full closure plan for Raglan Mine

In 2018 and 2019 several major tasks were completed, and progress was made on other longer-term activities. Most notably, the subcommittee began their review of the 2019-2024 Closure Plan. This collaborative activity will ensure that (a) community representatives (and their respective communities) are informed about how Raglan Mine had planned for closure, and (b) identify opportunities how the next closure plan should reflect the needs, values, and priorities of Salluit and Kangiqsujuaq in addition to using best practices for reclamation to protect the environment and meet government requirements.

To review Raglan Mine's closure plan, the members of the subcommittee individually read the document and recorded all of their comments, questions, and concerns about specific sections of the closure plan. These were then compiled into one master document that contained all of the comments from each subcommittee member. During meetings, the subcommittee reads through each comment as a group to either answer the question or discuss the concern that was raised and make suggestions for the next version of the closure plan.

As of December 2019, approximately half of the closure plan has been examined by the subcommittee, and through this task the process for reviewing the closure plan has been continuously revised and improved upon. This activity will continue in subsequent meetings and will inform the development of Raglan Mine's next closure plan.

Other major accomplishments from 2018 and 2019 include:

- **Working with TERRE-NET** graduate students at Memorial University to develop a research plan that contributes to the expertise of the subcommittee.
 - In 2018, Vanessa Potvin (MSc) conducted interviews in Salluit and Kangiqsujaq to learn about what community members would like to see for the closure of Raglan Mine.
 - Caitlynn Beckett (PhD) has been tracking the progress of the closure subcommittee since 2018 to contribute to the transparency, knowledge sharing, and communication of the closure planning process.
 - Lastly, Miranda Monosky (MA) has been reviewing and comparing mine closure plans from across Northern Canada to improve knowledge about mine closure best practices. Much of this research will be publicly available by spring 2020.
- **Significant progress** was made in the development of a mine reclamation microprogram at Université du Québec en Abitibi-Témiscamingue. This microprogram will teach community members about important aspects of mine reclamation. The goal of this microprogram is to increase the capacity of community members to engage meaningfully with the mining industry about mine reclamation, so they are both informed and able to participate in the process of planning for and executing mine closure. This program is planned to begin in September 2020 and subcommittee members will participate in the first courses offered.
- **Information about mine closure planning** and the activities of the subcommittee have been and will continue to be communicated at all of the Environmental Forums held in Salluit (March 2018) and Kangiqsujaq (October 2018 and November 2019) as part of an ongoing effort to keep community members informed.
- **Meeting** with the Deputy Minister of Mines and Director General of the Ministry of Energy and Natural Resources to discuss the status of the Asbestos Hill mine site and the work that the Government is now doing to close the site. While Raglan Mine is not responsible for Asbestos Hill, it has an important impact on the work completed in collaboration with its partners and as such they have facilitated conversations between them and the Government of Québec.



Priorities for 2020

Completing the review of Raglan Mine's closure plan will be a primary focus for subcommittee meetings in 2020. In addition to this, the subcommittee has set the following priorities:

- **FINALIZE** communication material to explain the work of the subcommittee
- **WORK TOWARD EXECUTING** a mining terminology workshop and developing a mining terminology dictionary in Inuktitut
- **CONTINUE TO DEVELOP** the first courses of the mine reclamation microprogram
- **WORK TOWARD PROCURING** a 3D model of Raglan Mine's tailings pile
- **VISIT** the Canadian Royalties mine site to compare Tailings Storage Facilities
- **INVITE** climate change experts to speak with the subcommittee about how climate change might impact the closure and long-term stability of Raglan Mine
- **PARTICIPATE** in two public forums that the subcommittee has been invited to speak at (the Nunavik Mining Workshop and Le Forum des Ministres du Développement du Nord)
- **CONTINUE TO LEAD** the way in best practices for mine closure – this may involve attending and presenting at conferences/workshops related to mine closure to share the work of the subcommittee

Appendix

Summary of Meetings

March 15-16, 2018, Laval

This was the first meeting of the subcommittee. The main objectives of this meeting were to establish a shared vision for the subcommittee and the future of the mine, and to develop a clear set of goals for how to achieve that vision.

Developed a vision for the subcommittee: A visioning exercise took place to generate a common goal, hope, and encouragement. This vision is meant to be something positive to move towards. To facilitate this exercise, the following question was asked: *If we were here 30 years from today – and you were to look back over that time to today – what has to have happened during that period, with regard to planning for closure, for you to be happy about the progress?*

The vision that was developed was made up of the following considerations:

- **FINANCIAL GUARANTEE:** ensuring that there are funds for closure and at least 10 years of post-closure monitoring, as well as backup funds in case of an emergency.
- **COMMUNITY ENGAGEMENT:** updating the communities yearly, working towards strong relationships between the mine and Inuit, and creating a sense of pride and accomplishment as a result.
- **RAGLAN AGREEMENT:** at closure, there should be a clear plan for the right of first refusal (i.e. infrastructure can be transferred to the communities), and Inuit parties will have had the last tour of the site to make sure that nothing is left behind that was not agreed upon.
- **HONOURING INUIT CULTURE:** protecting the rights of Indigenous peoples and having tailings experts learn from and value Indigenous Traditional Knowledge.
- **BUILDING CAPACITY:** developing capacity within the communities by providing training so that Inuit may participate in and benefit from remediation work. This includes youth training and education programs, having certified Inuit from the communities in environmental sciences, engineering, biology, and biodiversity to contribute to closure, creating Inuit businesses that specialize in closure and reclamation, and developing a socio-economic closure plan.
- **BEST PRACTICES:** being creative, having a sense of pride and leadership in this work, and paving the way for industry and government to improve closure practices.
- **TAILINGS:** finding innovative ways to ensure that the integrity of the tailings is guaranteed in perpetuity. The best technology and practices should be used for the removal and treatment of mine tailings so that there is no acid leakage or residual harmful materials.
- **ENVIRONMENT:** protecting humans and the environment and integrating climate change considerations into closure planning. Food and water sources will be protected, food security will be guaranteed, and communities will be involved in the reclamation of the Raglan Mine site and Deception Bay and surrounding ecosystems.

August 22-23, 2018, Laval

A first draft of the mission and vision statement were produced, based on the March meeting discussions, to be reviewed and revised at future meetings. Updates were given on work being done outside of the subcommittee meetings, including:

UQAT mine reclamation microprogram: Bruno provided detail about the possibility of developing a Microprogram at UQAT that would allow community members to become more knowledgeable about mining and mine remediation and therefore would be more equipped to engage with mining companies. It was agreed that there is an appetite within the communities to have this kind of customized program with flexible entrance criteria. This microprogram would continue to be refined throughout the 2018 and 2019.

TERRE-NET research update: An update was given to the subcommittee by Vanessa Potvin about the progress of her research, which included interviews with community members in Salluit and Kangiqsujuaq to understand what they would like to happen when the mine eventually closes. The interviews demonstrated that the major priorities for community members was infrastructure (e.g. improving transportation networks, repurposing buildings) and communication (e.g. always improving information transmission, involving everyone in closure work).

DECEMBER 12-13, 2018, MONTREAL

UQAT mine reclamation microprogram: The subcommittee received an update about the progress of the mine reclamation microprogram from Bruno. During this meeting, Bruno explained the specific courses that would be offered in the microprogram and the subcommittee further refined what the purpose of the microprogram is and what the best method would be for executing the courses. A set of actions were agreed on to ensure that progress would continue, and another update would be given at the next meeting.

Process for reviewing Raglan's closure plan: A major accomplishment at this meeting was agreeing on a method for the review of the closure plan, which would be for all members to individually read the closure plan and record all of their comments and questions. These comments and questions would then be compiled into a larger document that the subcommittee would work through together at subsequent meetings.

Continued TERRE-NET research: the subcommittee discussed how future research from TERRE-NET students can answer their questions and improve the expertise around the table. The subcommittee agreed that new research should help them achieve their goals, and that research activities should focus on tracking the process and progress of the subcommittee and comparing it to other cases of mine closure planning. Miranda Monosky, a TERRE-NET graduate student from Memorial University, would begin research activities to assist the subcommittee.

FEBRUARY 25-26, 2019, QUÉBEC CITY

This was the first subcommittee meeting where the closure plan for Raglan Mine was examined. This activity began with each person giving their general thoughts about the closure plan, and then beginning a detailed review of the document based on the comments that subcommittee members had recorded. Much of the two days were spent on this task and good progress was made (approximately 25% of the Closure Plan document). This activity will continue at subsequent meetings until the entire document has been reviewed and each comment, question, and concern is addressed.

TERRE-NET updates: Both TERRE-NET members provided updates on their work outside of the meetings. Bruno provided more details about the UQAT microprogram, which has steadily been moving through the planning stages. Arn discussed the status of his team's research, which included analysis and writing of the first phase of research completed by Vanessa Potvin. Miranda Monosky presented her proposal for the next phase of research, which involved a comparison of Northern mine closure plans and interviews with government authorities to improve knowledge about mine closure practices and policies.

Port of Québec tour and presentations: The subcommittee received presentations from Glencore's Sudbury Integrated Nickel Operations and Nikkelverk refinery in Norway to learn about how other Glencore sites are operating and ensuring environmental and human safety. As part of these presentations, the subcommittee was also taken to the Port of Québec to view where the ships offload cargo from Raglan Mine.

DECEMBER 2-4, 2019, QUÉBEC CITY

Like the previous meeting in February, the main focus of this meeting was the continued review of the closure plan for Raglan Mine. At the end of the three days, approximately 50% of the closure plan had been reviewed together. From this review, a list of comments and questions about the document are being compiled and will contribute to the next iteration of Raglan Mine's closure plan.

UQAT mine reclamation microprogram: Bruno informed the subcommittee that funding has been obtained and the course dossier will be submitted to the university for formal approval, which will take 2-3 months. The program should run its first set of courses in the fall semester of 2020, and the subcommittee agreed that the Inuit members should be among the program's first students.

Continued TERRE-NET research: Arn provided a general update on the work of his graduate students, which was followed by a presentation by Miranda Monosky that gave a more detailed update about their research and some preliminary results of the comparison of Northern closure plans. Some of the major findings include (1) the methods for applying community knowledge are left vague, (2) closure plans are inconsistent in how they address socio-economic impacts and financial securities, and (3) there are many positive examples of good closure planning practices that can be applied to Raglan Mine. A more thorough report on these results will be produced in 2020.

Communications materials: Several important communications materials were reviewed and finalized, including the vision and mission statement for the subcommittee, roles and responsibilities for each of the parties, and a fact sheet about mine closure planning for Raglan Mine.



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