



GIANT MINE REMEDIATION PROJECT

# LEARN MORE ABOUT THE GIANT MINE REMEDIATION PROJECT

## WHAT IS GIANT MINE?

The Giant Mine was one of the longest-operating gold mines in Canada. The Government of Canada became responsible for the site when the owners went bankrupt. It is one of Canada's highest priority contaminated sites. It requires ongoing management to protect the environment and human health and safety.

- The Giant Mine site is **900 hectares** in size—roughly the same land area as the community of Gamètì.
- Among what is left behind at the site includes **13.5 million tonnes** of contaminated tailings, as well as **237,000 tonnes** of arsenic trioxide dust.

## CANADA WILL:

- Minimize public and worker health and safety risks.
- Minimize the release of contaminants from the site to the surrounding environment.
- Remediate the site in a manner that instills public confidence.
- Implement a remediation approach that is cost effective and robust over the long term.



Canada 

## MINE HISTORY IN BRIEF

- **1948–1999** – Processing and roasting activities that took place at the Giant Mine over the decades left behind waste rock and finely crushed particles (known as tailings), which could leach heavy metals and acid into the land and water. They also left behind 237,000 of arsenic trioxide dust, stored in underground chambers and stopes, which requires long-term management.
- **1999** – The owner of the Giant Mine, Royal Oak Mines Inc., declares bankruptcy and responsibility for the site is transferred to the Government of Canada. Canada sold the assets to Miramar Giant Mine Ltd, which continued to operate the mine to process remaining ore. As a condition of the sale, Canada acknowledged Miramar would not be responsible or liable for the existing state of the mine.
- **2005** – Giant Mine officially became an abandoned mine.

## ONGOING

- Care, maintenance, and site stabilization work continues. This has included the deconstruction of structures that posed safety risks to workers on site, such as the Roaster Complex and the C-shaft headframe.



## ASSESSING THE GIANT MINE REMEDIATION PROJECT

A Remediation Plan was developed after years of site investigations, research, and consultation with the public and with the Independent Peer Review Panel.

### 1999–2005

- Beginning stages of the development of the Remediation and Development Assessment Report and preparing the application for a water licence.
- Research to understand the risks and complexities of the mine site, while also identifying remediation options for arsenic trioxide.
- Initiated care and maintenance of site.

## DEFINING THE PROJECT, PRE-ENVIRONMENTAL ASSESSMENT

The Project team moved forward with the design of a detailed Remediation Plan.



### 2006–2014

#### 2007

The Project submitted the application for a water licence based on the Remediation Plan.

#### 2008

The Remediation Plan is referred to Environmental Assessment.

#### 2012

The Site Stabilization Plan is developed to address immediate high risks such as the deconstruction of deteriorating onsite infrastructure.

#### 2013

The Mackenzie Valley Environmental Impact Review Board issues its Report of Environmental Assessment, including 26 measures for the project to address so remediation can happen.

#### 2014

With modifications to nine of the measures, the Report of Environmental Assessment is accepted by the Responsible Ministers.



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## DEFINING THE PROJECT, POST-ENVIRONMENTAL ASSESSMENT

The Project team focused on the design and planning of a detailed closure and reclamation plan and also addressed the 26 measures from the Report of Environmental Assessment.

### 2015–2019

- **2015** – The Environmental Agreement for the Project is signed and the Giant Mine Oversight Board is established. The Surface Design Engagement is started.
- **2016** – The Surface Design Engagement is completed. The update to the Human Health and Ecological Risk Assessment, a measure of the Environmental Assessment, begins.
- **2017** – The updated Human Health and Ecological Risk Assessment is completed. Sampling begins for the Health Effects Monitoring Program.



- **2018** – The Health Effects Monitoring Program is in its second year of sampling. Engagement on the draft Closure and Reclamation Plan begins.
- **2019** – The Closure and Reclamation Plan is finalized, along with all water licence package documents, such as management and monitoring plans. The water licence application is submitted to the Mackenzie Valley Land and Water Board.

## NEXT STEPS FOR THE PROJECT

The Project team is working toward the following milestones.

- **2020:** Regulatory authorizations are issued.
- **Anticipated for 2021:** Site remediation begins.



## WHO IS INVOLVED IN THE PROJECT?

### GOVERNMENT OF CANADA

Crown-Indigenous Relations and Northern Affairs Canada is Canada's lead on the project. It is the main source of funding for the project and is also leading the design of the Remediation Plan, regulatory process, and site maintenance and monitoring. Public Service and Procurement Canada also plays a key role on the Project team, providing contracting and project management services to the team.

### GOVERNMENT OF THE NORTHWEST TERRITORIES

Environment and Natural Resources represents the Government of the Northwest Territories, who is a co-proponent of the Project.

**THE YELLOWKNIVES DENE FIRST NATION, THE NORTH SLAVE MÉTIS ALLIANCE, THE CITY OF YELLOWKNIFE, ALTERNATIVES NORTH, OTHER FEDERAL DEPARTMENTS, AND VARIOUS OTHER RELEVANT STAKEHOLDERS** are consulted to ensure the Project reflects their input. In addition, the **GIANT MINE OVERSIGHT BOARD**, an independent group established by the Environmental Agreement, monitors the Giant Mine Remediation Project and provides recommendations to the Project team.

For further information visit [giant.gc.ca](http://giant.gc.ca).