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Giant Mine Remediation Project

Main Construction Manager Bidder's Surface Site Tour

August 31, 2016



Public Works and
Government Services
Canada

Travaux publics et
Services gouvernementaux
Canada

Canada

Presentation Outline

- Purpose & Objectives
- Water Management
- Mine Systems
- Site Security
- Dust Management
- Environmental Monitoring
- Risk Mitigation & Remediation
Preparation Activities



Purpose & Objectives

Purpose

- To familiarize bidders with aspects of the mine are seasonally variable and/or may be difficult to see during the anticipated tender period

Objectives

- Provide an organized context to the site tour
- Tour the site to gain an appreciation of the size and complexity of the property and some of the key management components.

Water Management

Key on-site activity and grouped into the following 3 categories:

1. Surface Water Management
2. Underground Water Management
3. Mine Water Treatment



Water Management

Surface Water Management – Surface Flow

- Management of drainage ditches to pits or Baker Creek
- Arsenic impacted water transferred to Mill Pond then onto Northwest Pond using pumps and overland piping
- Non-impacted water collected in clay sump; overland discharge to Baker Creek



Water Management

Surface Water Management – Baker Creek

- Increased vigilance leading up to and during freshet



Water Management

Underground Water Management

- Includes network of pumps and piping to manage of underground sumps and seeps
- Mine water level maintained at 750 feet below ground surface using two low lift pumps to manage water within the mine and two high lift pumps to transfer water to the NW Pond.
- This system is in the process of being replaced



Water Management

Mine Water Treatment

- Seasonal treatment (June to September)
- Iron co-precipitation process
- Average annual treatment volume is approx. 400,000 m³
- Baker Creek discharge



Mine Systems

- Ventilation
- Heating
- Power, water, air, communications
- Refuge Stations

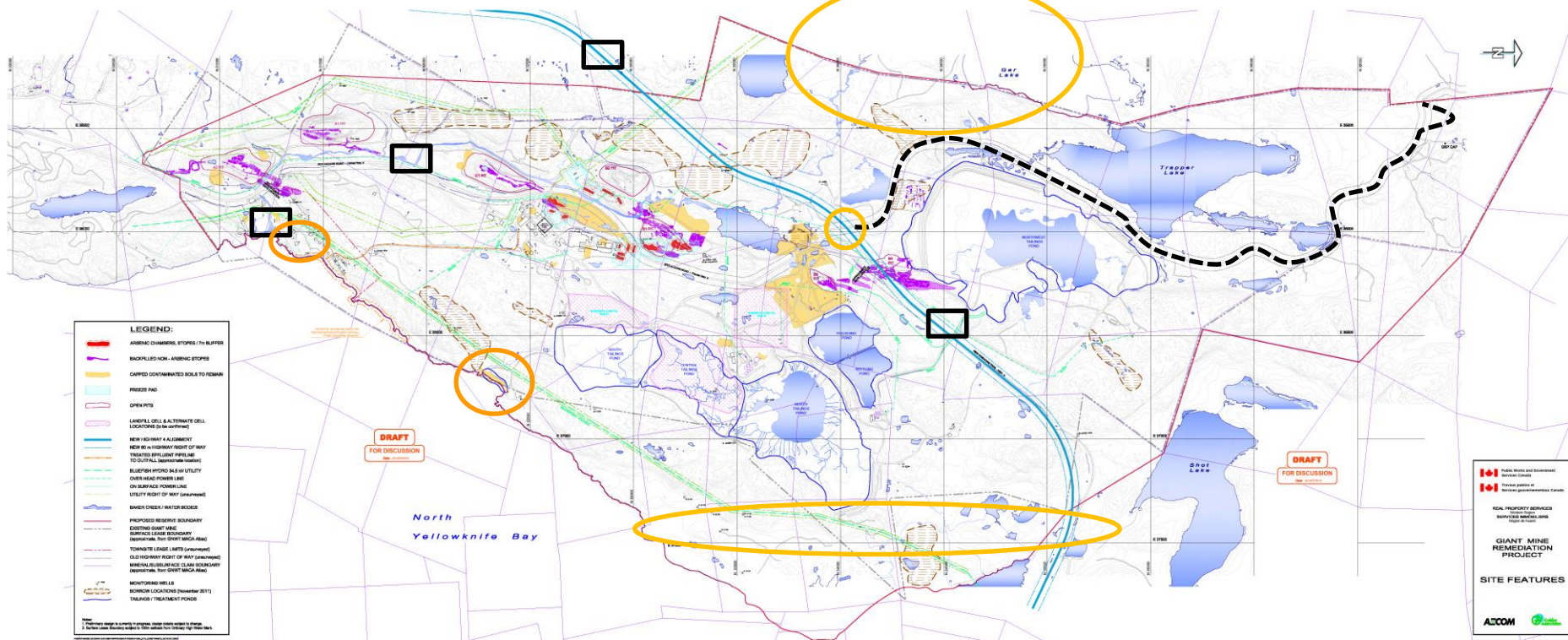


Site Security

- **Controlled Access**
 - Security guard & gate
 - Unmanned locked gates
- **Uncontrolled Access**
 - Town site beach area
 - Foreshore tailings beach area
 - Snowmobile trails
 - ATV paths



Site Security



Dust Management

Sources of dust which need to be monitored and managed:

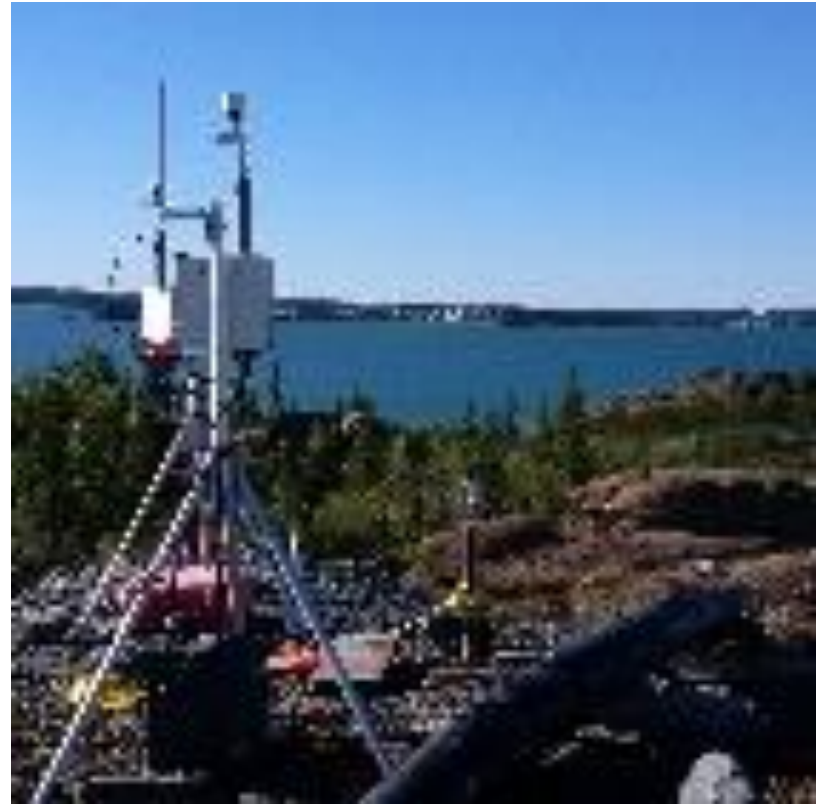
- Tailings ponds
- Roads
- Deconstruction activities
- Drilling and/or blasting



Environmental Monitoring

Monitoring Programs

- Surveillance Network Program (SNP)
- Environmental Effects Monitoring (Metal Mining Effluent Regulations)
- Air Monitoring Program (fence line and community stations)



Risk Mitigation & Remediation Preparation Activities

- Town site deconstruction
- Landfill preparation, construction, and management
- Contaminated soil excavation



A photograph of a rock face, possibly a cave wall, with a shadow of a person cast onto it. The word "Questions?" is overlaid in the center.

Questions?

