



Prairie Creek Mine Public Hearing Presentation

Fort Simpson, Northwest Territories

June 23 2011

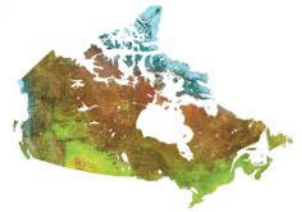


Natural Resources
Canada

Ressources naturelles
Canada

Canada

Outline



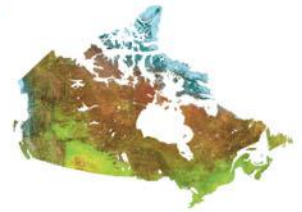
1. Mandate and Role
2. Technical Review Recommendations
 - a. Earth Sciences
 - b. Mine Waste Management
3. Questions

NRCan's Mandate



Natural Resources Canada (NRCan) seeks to enhance the responsible development and use of Canada's natural resources and the competitiveness of Canada's natural resources products.

NRCan's Role in this Review



- NRCan has a potential regulatory role for the explosives plant being considered by Canadian Zinc (CZN) for the proposed Prairie Creek Mine
- NRCan provided earth science and mine waste expertise for the project review, considering:
 - Geology, earthquakes, permafrost and terrain stability, water storage pond stability, access road sinkholes, landslides, waste rock management and post closure water quality

Technical Review Summary – Earth Sciences



NRCan has no recommendations for the Review Board for the following subject areas:

- *Geology* - the proponent provided a reasonable baseline geology to identify ore potential
- *Earthquakes* – the proponent appropriately considered the earthquake hazards for area, and proposes to design mine building and critical infrastructure to meet appropriate modern codes and standards.
- *Access Road Sinkholes* - the proponent proposes to manage sinkholes development through baseline map of karst features and a monitoring program.

Technical Recommendations – Earth Sciences



NRCan has also provided recommendations that can be addressed through detailed engineering design and the development of environmental management plans:

- *Permafrost and Terrain Stability of the Access road* - NRCan concurs with CZN's consultant recommendation for further geotechnical investigation along that access road.
- *Water Storage Pond Stability* – Additional geotechnical studies will assist in the design of the water storage pond slopes to ensure their long term stability, considering the uncertainties in water balance and storage capacity.
- *Landslides* - NRCan recommends that the proponent include detailed geohazard and risk information in its final detailed road design.

Technical Recommendations – Mine Waste Management



NRCan has also provided recommendations for work the proponent should consider in conjunction with its existing commitments (May 6, 2011):

- *Waste Rock Management* - The proponent is planning additional studies to finalize the design for covering and managing waste rock; NRCan recommends that the proponent's objective in that design must be to minimize or avoid contaminant loading to Prairie Creek.
- *Post Mine Closure Water Quality* - The proponent is planning monitoring studies to better understand groundwater flow path and quality. NRCan recommends questions that should be answered in advance of those monitoring studies seeking information on the process through which metals in groundwater may be naturally reduced.

Closing



NRCan is willing to respond to any questions regarding our technical review by the Board, the Proponent, and other parties involved in the project in support of the environmental assessment process.



Canada