

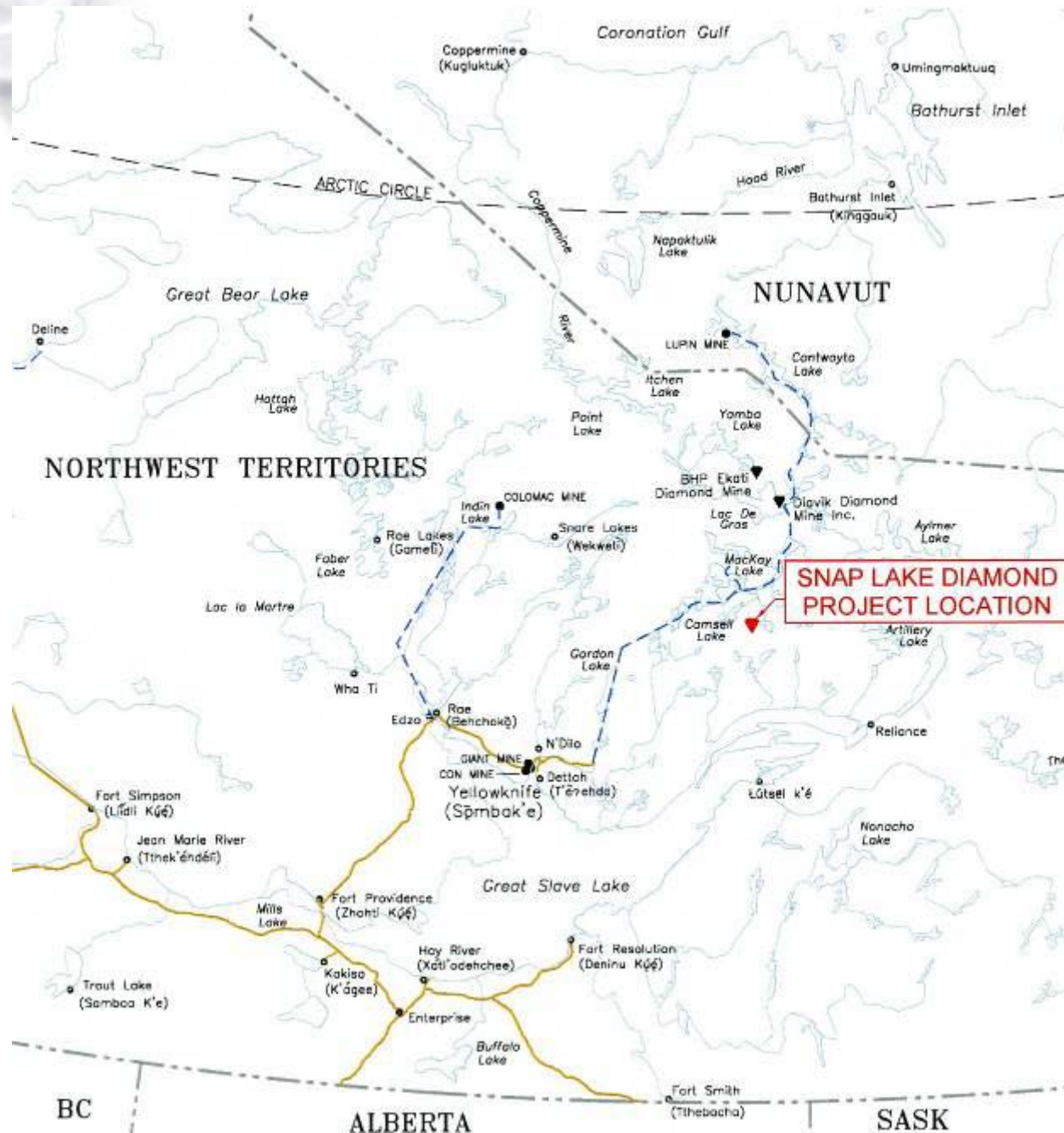


Snap Lake Diamond Project

Reclamation Planning Update for the Snap Lake Diamond Project – February 2005

Project Location

220 km
northeast of
Yellowknife



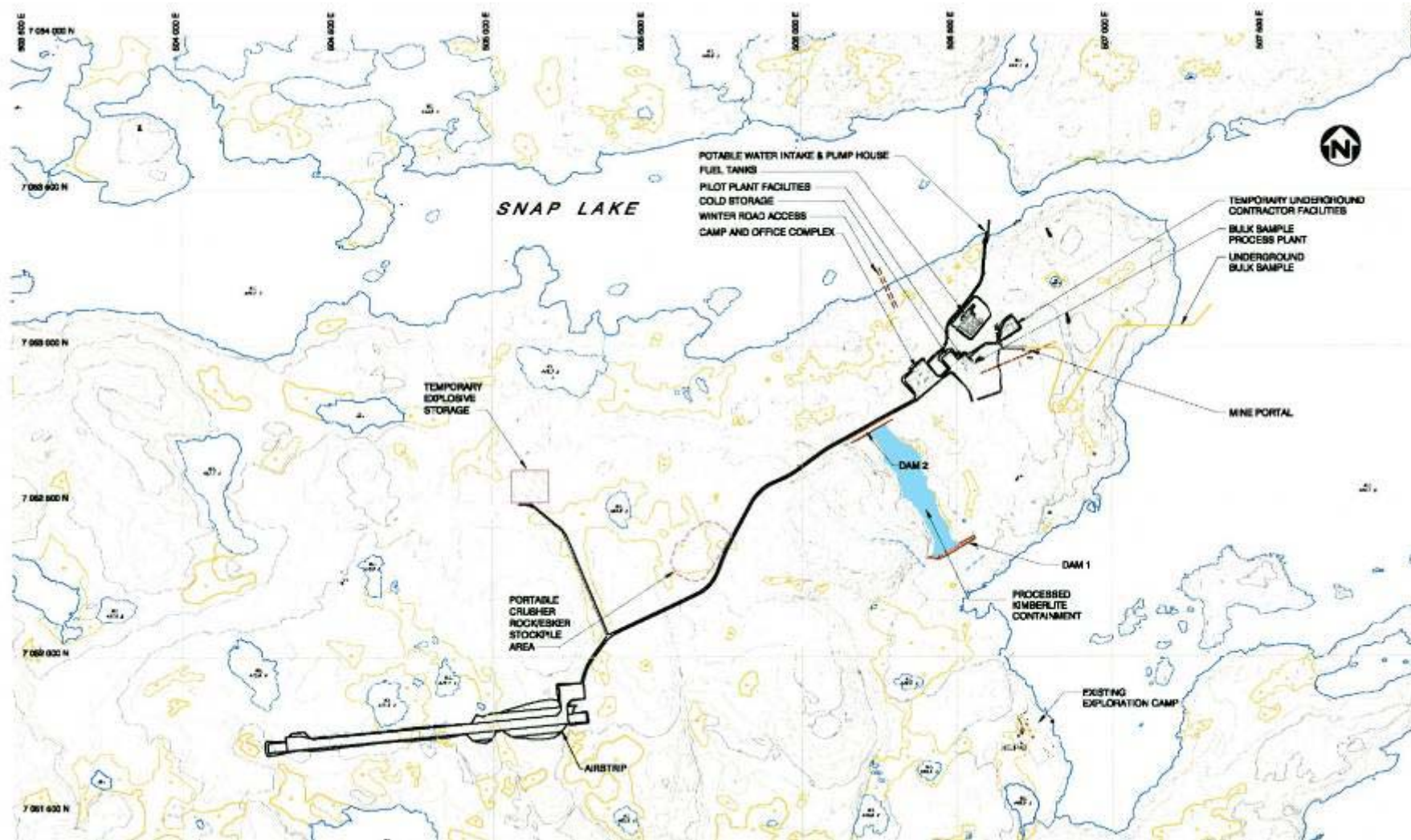
Project Setting

- Remote location accessible from the Tibbitt-to-Contwoyto winter road;
- Climate is characterized by short cool summers and very cold winters;
- Located within the barren lands of the N.W.T. Area is characterized by rolling terrain, rocky hills of limited relief, numerous lakes and rock strewn surfaces harbouring sporadic, low-growing vegetation; low trees and shrub patches in topographic depressions and along shorelines;
- Open tundra (78%), with limited coniferous forest (9%), sedge wetlands (<2%) and marsh (<1%);
- Large scattered boulders and frost-shattered rocks dominate the ground.

Current Status – Mine Development/Construction

- Underground mine is currently under development;
- New water treatment plant constructed in 2004;
- Construction of the process facilities and surface infrastructure will take place in 2005 and 2006;
- First commercial production to commence in late 2006.

Current State of Development

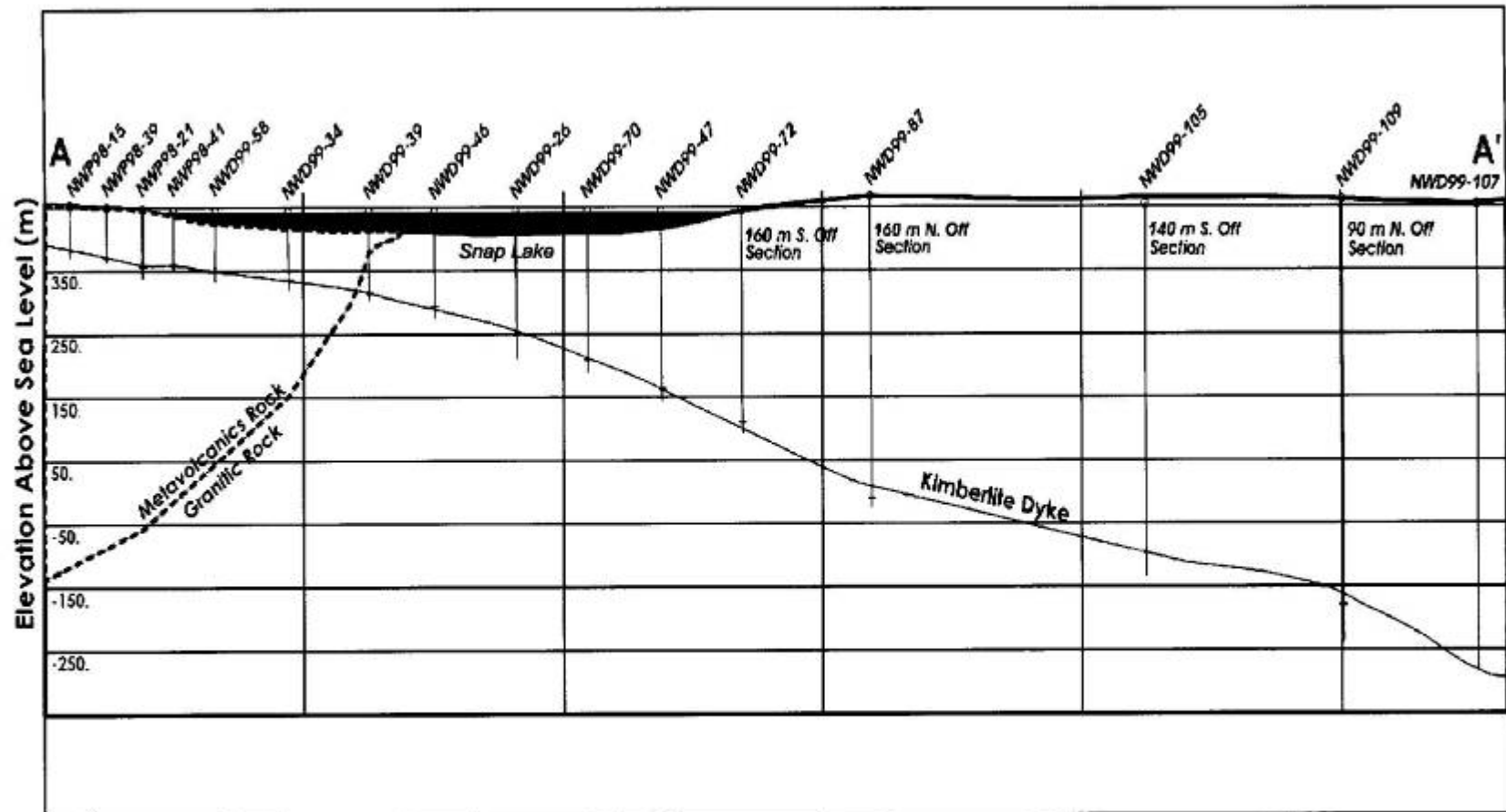




Environmental Assessment & Permitting History

- February 2001 – Environmental Assessment initiated under the Mackenzie Valley Resource Management Act;
- May 2001 – Project referred to the Mackenzie Valley Environmental Impact Review Board for environmental assessment;
- July 2003 – MVEIRB submit their EA decision report for the INAC Minister's approval;
- October 2003 – Minister approved the EA report and directed the MVLWB to proceed with the licensing procedure;
- May 31, 2004 – Class A Water Use License for the Snap Lake Project is issued.

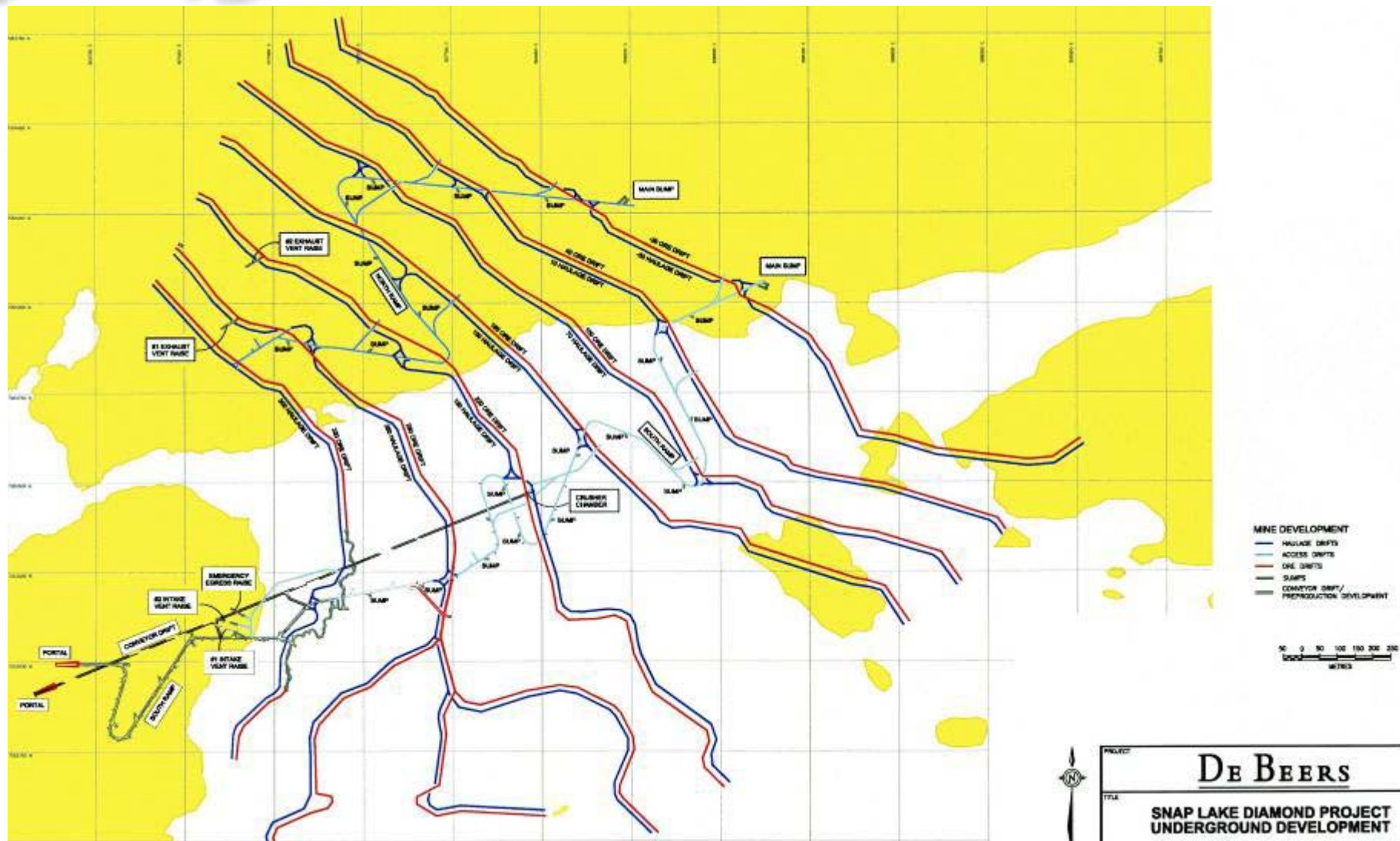
Cross-Section of Kimberlite Dyke



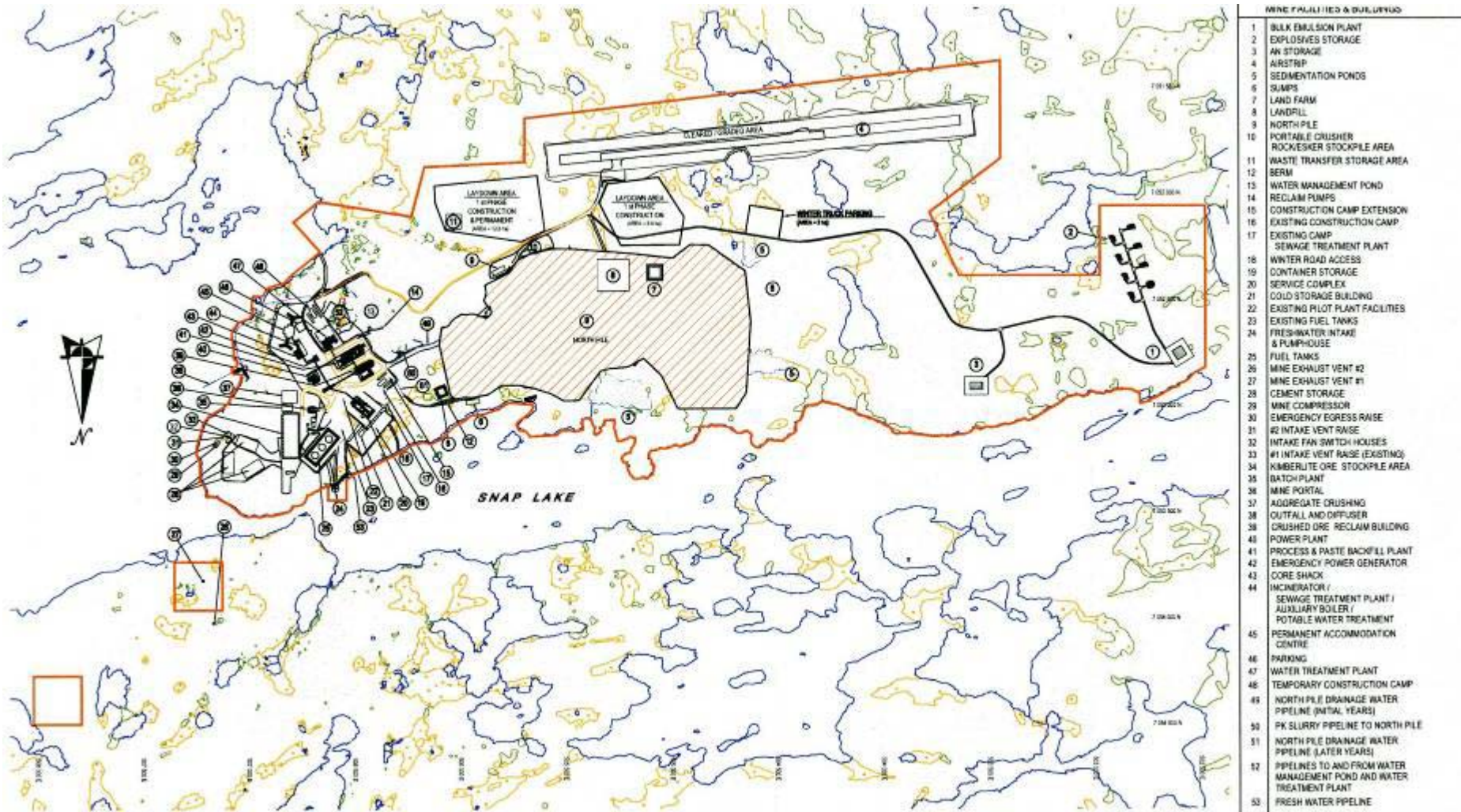
LEGEND



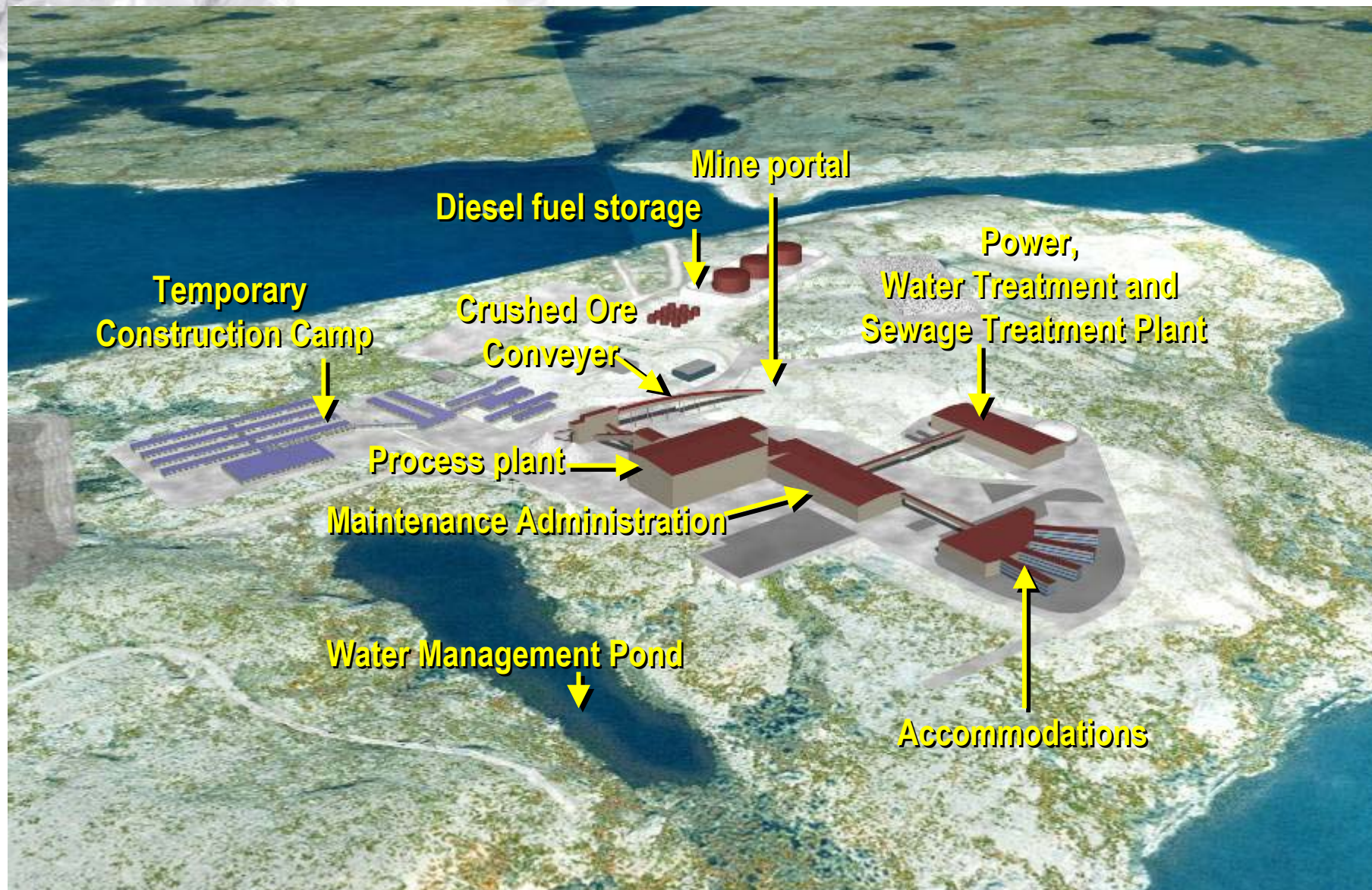
Plan View of Proposed U/G Mine Workings

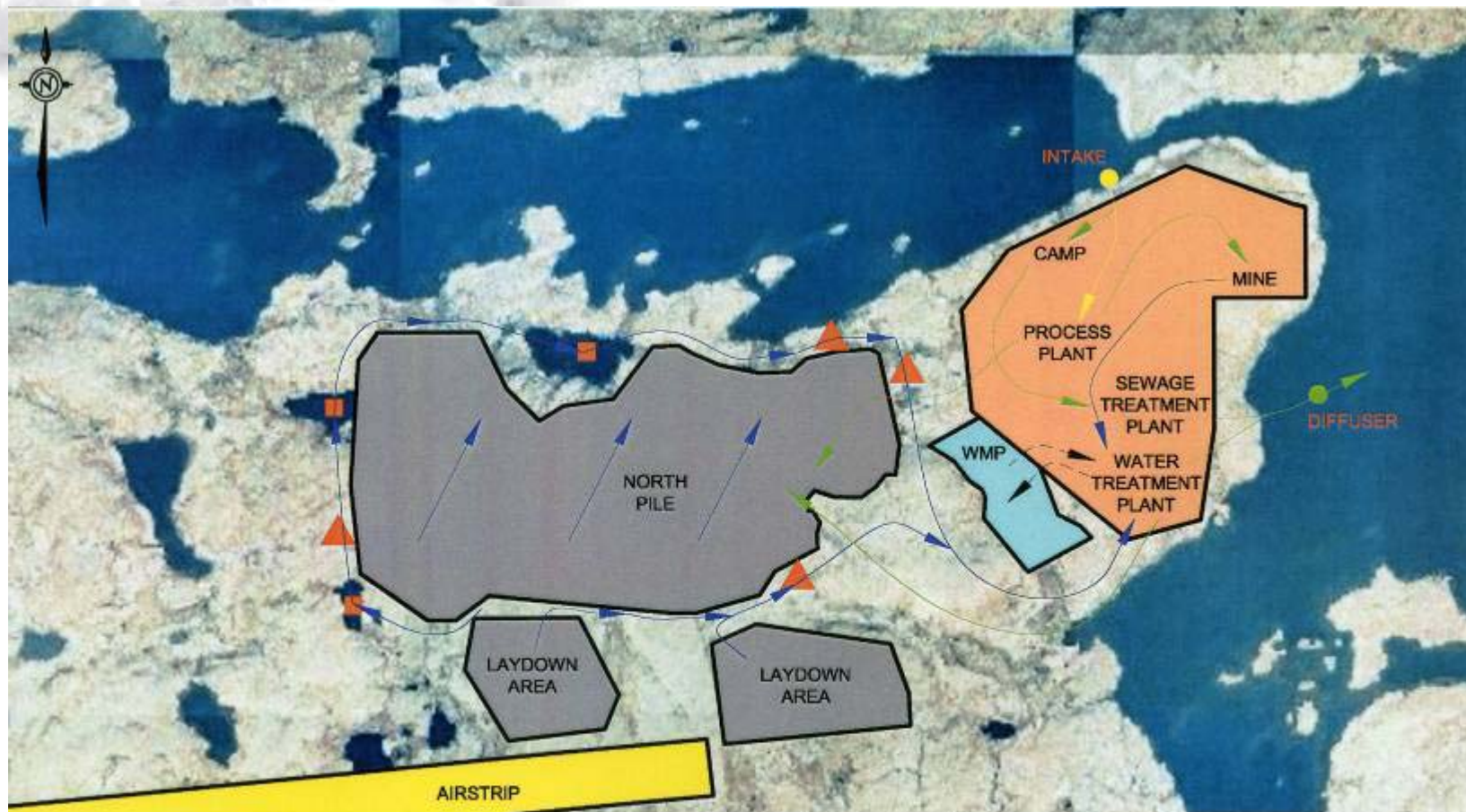


Planned Site Development









LEGEND

- | | | | |
|--|----------------------------|--|------------------------|
| | SEEPAGE | | SUMPS |
| | INCOMING WATER | | WATER COLLECTION PONDS |
| | TREATED OR PROCESSED WATER | | |
| | EMERGENCY STORAGE | | |

PROJECT

DE BEERS

TITLE

**SNAP LAKE DIAMOND PROJECT
OVERALL WATER FLOW PATTERNS**



PROJECT No.	012-0492	FILE No.	
DESIGN		SCALE	AS SHOWN
CHECK	SR	DATE	08/01/02
REVIEW			

**FIGURE:
3.6-1**

Environmental Monitoring Program

Monitoring programs are proposed for:

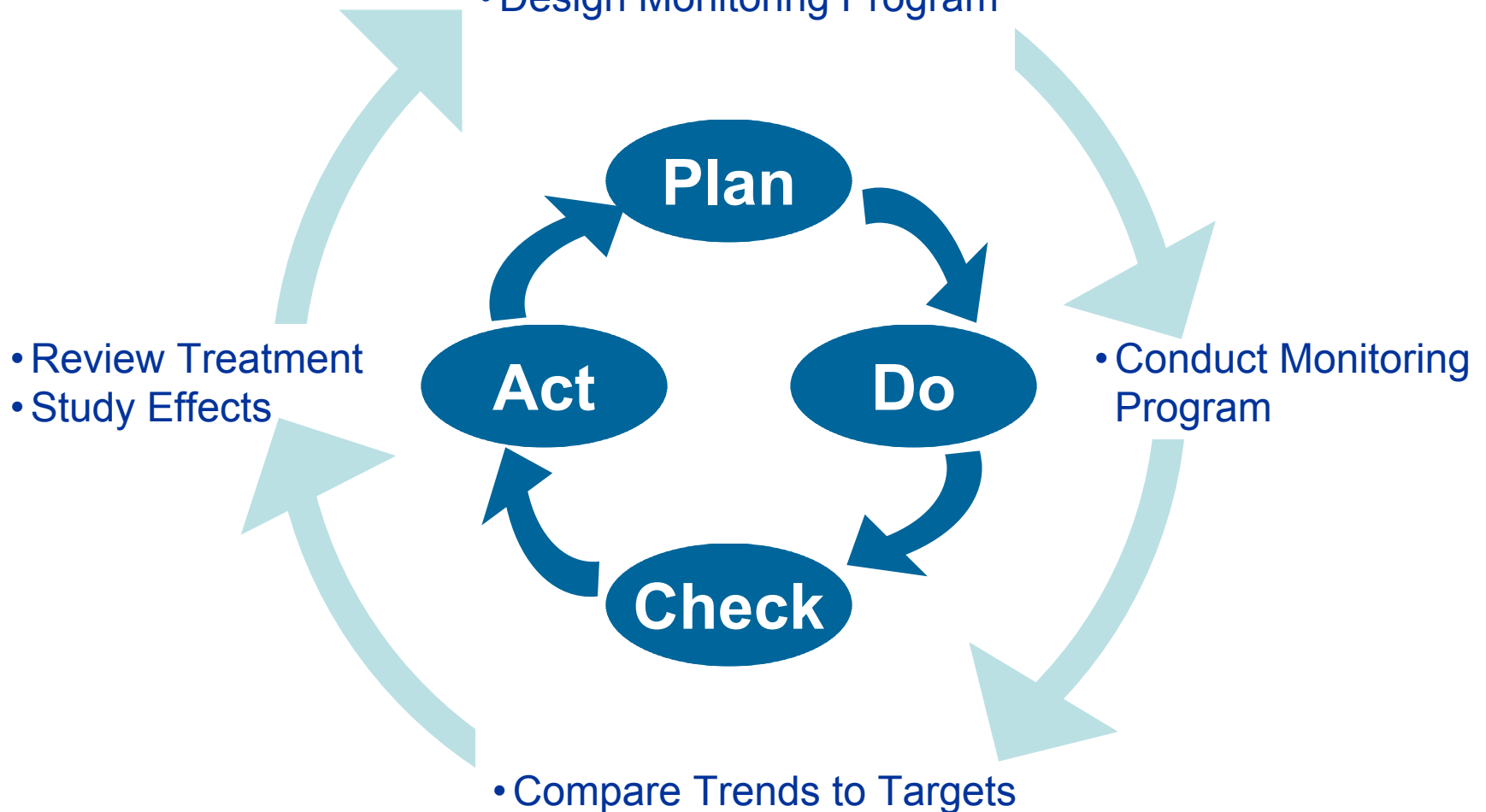
- Air quality
- Vegetation
- Wildlife
- Environmental Health
- North Pile
- Aquatic Surveillance Network
- Hydrogeology and Geochemistry
- Hydrology
- Water Quality
- Aquatic Effects

Environmental Management System Programs

- Reclamation and closure
- Spill contingency
- Emergency response
- Water management
- Waste management
- Air management
- Wildlife management
- Quarry management
- North pile development

EMS Example

- EMS Targets
- Design Monitoring Program



Reclamation Planning History

- A conceptual Mine Reclamation Plan for the Snap Lake Project was completed and included in the Environmental Impact Statement submitted to the MVEIRB in February of 2002;
- A Preliminary Mine Closure & Reclamation Plan was completed and submitted to the MVLWB in March of 2003 in support of the Water Licensing Process;
- Currently working on updating the March 2003 Reclamation Plan as required under the Water License;
- Focus on setting site specific reclamation objectives.

Reclamation Planning – Key Principles

- Level of detail will improve at each successive stage of refinement;
- The Reclamation Plan is a “Living” document, will undergo refinements over the mine’s operating life;
- Reclamation of each mine component taken into consideration as part of the mine design;
- Progressive reclamation an important part of the reclamation plan specifically in relation to reclaiming mine waste (North Pile);
- Progressive reclamation provides opportunity to gain experience and to adaptively manage reclamation plan over the mine life.

Mine Components – Reclamation Units

- Underground Mine
- Process Facilities
- Surface Infrastructure
 - Roads and Airstrip;
 - Quarries;
 - Fuel Storage Tanks;
 - Power Plant;
 - Accommodations Complex;
 - Site Support Facilities;
 - Site Waste Management Facilities;
- Mine Waste and PK Containment (North Pile)
- Water Management Facilities

Closure & Reclamation

Underground mine

- Off-site removal of any salvageable equipment;
- Off-site removal of all potentially hazardous materials such as explosives, petroleum products, chemicals, electrical transformers, etc.;
- Shut down underground pumps and allow the mine to flood with groundwater;
- Remove buildings from ventilation raise and install concrete caps to seal off openings into the mine;
- Seal off ramp and conveyor access into the mine by plugging the ramps with a rockfill plug.



Buildings & equipment

- Off-site removal of any salvageable equipment;
- All equipment and buildings will be checked and cleaned of any potentially hazardous materials before demolition;
- Hazardous materials will be shipped off site for disposal at a licensed facility;
- Complete removal of all surface buildings;
- Demolition debris will be buried within the north pile;
- Removal of above ground foundations and concrete supports;
- Buried piping and electrical cables cut to below surface.



Solid waste disposal

- Hazardous materials such as chemicals, petroleum products, reagents, etc. Will be packed up and shipped off-site for disposal at a licensed disposal facility;
- Contaminated soil will be identified, excavated and disposed of off-site at a licensed disposal facility;
- All equipment and buildings not to be removed from site will be cleaned and drained of all potentially hazardous materials prior to demolition;
- Non-hazardous demolition debris will be buried within the north pile



Mine waste & processed kimberlite (north pile)

- Processed kimberlite not used as backfill underground will be discharged into the north pile as a paste;
- North pile will be contoured and then capped with 1 m thick layer of quarried granite rock;
- Permafrost will establish itself within the north pile over time;
- Continue treatment of site drainage and seepage from north pile until water quality discharge standards met

Closure & Reclamation

Security

- Reclamation costs were estimated annually
 - Third party contractor
 - Engineering, project & construction management
 - Site services & operation
- Assumes progressive reclamation

Reclamation Challenges

- Establishing site specific reclamation objectives that are realistic, achievable and that meet stakeholder expectations;
- Incorporating traditional knowledge into reclamation planning;
- Revegetation issues;
 - Lack of available soils for use in reclamation;
 - Difficulty in establishing a self-sustaining vegetative cover in the northern climate;
 - Pros and cons of revegetating areas of mine waste.