

OPERATIONAL ENVIRONMENTAL MONITORING PLANS: CONCEPTUAL AMENDMENTS FOR THE JAY PROJECT



Wastewater and Processed Kimberlite Management Plan (WPKMP)



New Vision, New Focus, New Name

Wastewater and Processed Kimberlite Management Plan Version 4.1 May 2014



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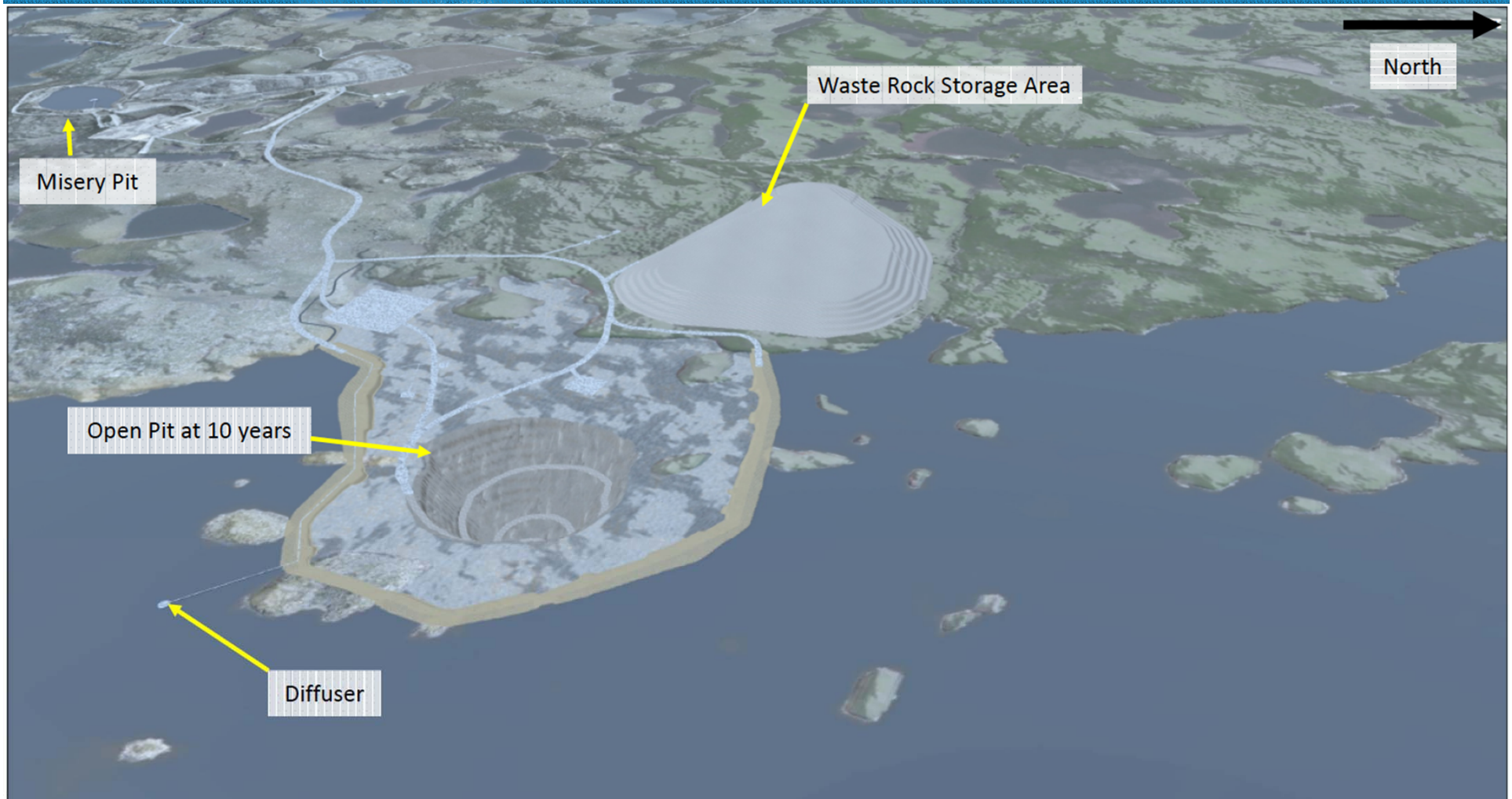
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Wastewater and Processed Kimberlite Management Plan (WPKMP)

- Jay Project Minewater:
 - Jay area runoff water pumped from Jay Runoff Sump to Misery Pit (top)
 - Jay open pit inflows pumped from Jay Mine Inflows Sump to Misery Pit (bottom)
 - Effluent discharged from Misery Pit to Lac du Sauvage (starts year 5 or 6)
 - Safe operating range with freeboard for Misery Pit
 - King Pond provides contingency storage volume
 - Lynx Pit provides potential contingency storage
- Monitoring through the Water Licence Surveillance Network Program

Wastewater and Processed Kimberlite Management Plan (WPKMP)





Wastewater and Processed Kimberlite Management Plan (WPKMP)

- Jay Project Processed Kimberlite (PK) Deposition:
 - PK deposition complete in Beartooth Pit
 - PK deposition complete in LLCF Cells A/B/C
 - LLCF Cell D continues as contingency PK deposition location
 - LLCF Cell E continues as effluent discharge location
 - PK slurry pumped from processing plant to Panda and Koala pits
 - Reclaim water pumped from LLCF or Panda/Koala pits
 - Safe operating range with freeboard for Panda and Koala pits
- Jay Project Sewage:
 - Treated sewage outflow pumped to Panda/Koala pits with FPK slurry
- Monitoring through the Water Licence Surveillance Network Program

Wastewater and Processed Kimberlite Management Plan (WPKMP)

Long Lake Containment Facility



Panda, Koala, and Beartooth Pits

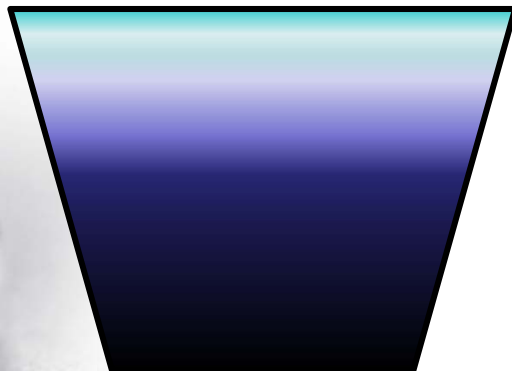




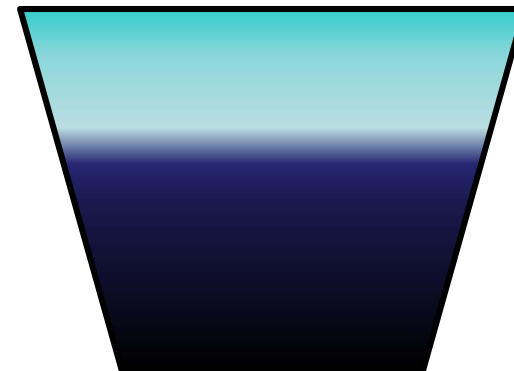
Wastewater and Processed Kimberlite Management Plan (WPKMP)

- Jay Project Closure and Reclamation:
 - Panda/Koala Pits: 30 m deep fresh water 'cap' and outflow channel
 - Misery Pit: 60 m deep fresh water 'cap' and outflow channel
 - Jay Pit: freshwater cap and Lac du Sauvage
 - Details and Monitoring in the Closure and Reclamation Plan

Misery Pit



Jay Pit



(not to scale)



Waste Rock and Ore Storage Management Plan (WROMP)



New Vision, New Focus, New Name

Ekati Diamond Mine Waste Rock and Ore Storage Management Plan

Version 4.1, May 2014



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Waste Rock and Ore Storage Management Plan (WROMP)

- Jay Project Geochemical Characterization:
 - Jay Pit mined materials geochemically consistent with same rock types mined elsewhere at the Ekati Mine
 - Jay Pit granite and diabase (75% of waste rock) is non-acid generating
 - Jay Pit metasediment (25% of waste rock) is managed as potentially acid generating (PAG)
 - Jay Pit metasediment has 2 geochemical populations (about 50/50 PAG/non-PAG)
 - Jay Pit kimberlite is non-acid generating



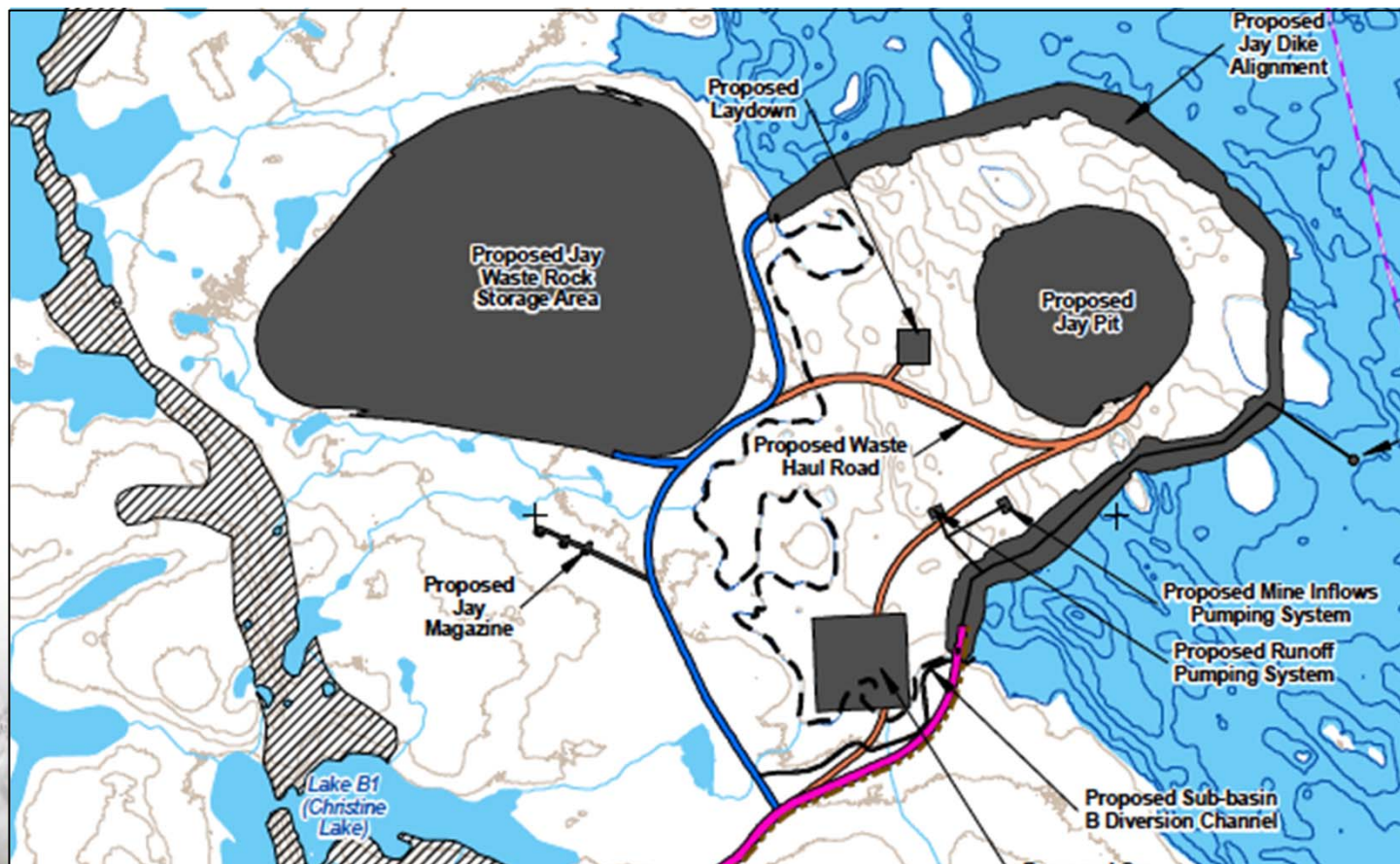


Waste Rock and Ore Storage Management Plan (WROMP)

- Jay Project Waste Rock Storage Area (WRSA):
 - Located on land near Jay Pit
 - Fills and covers construction granite quarry
 - Contains excavated waste rock and overburden/soils
 - Safe setback distances:
 - 100 m from Lac du Sauvage
 - 200 m from esker
 - 30 m from small streams and ponds



Waste Rock and Ore Storage Management Plan (WROMP)



Waste Rock and Ore Storage Management Plan (WROMP)

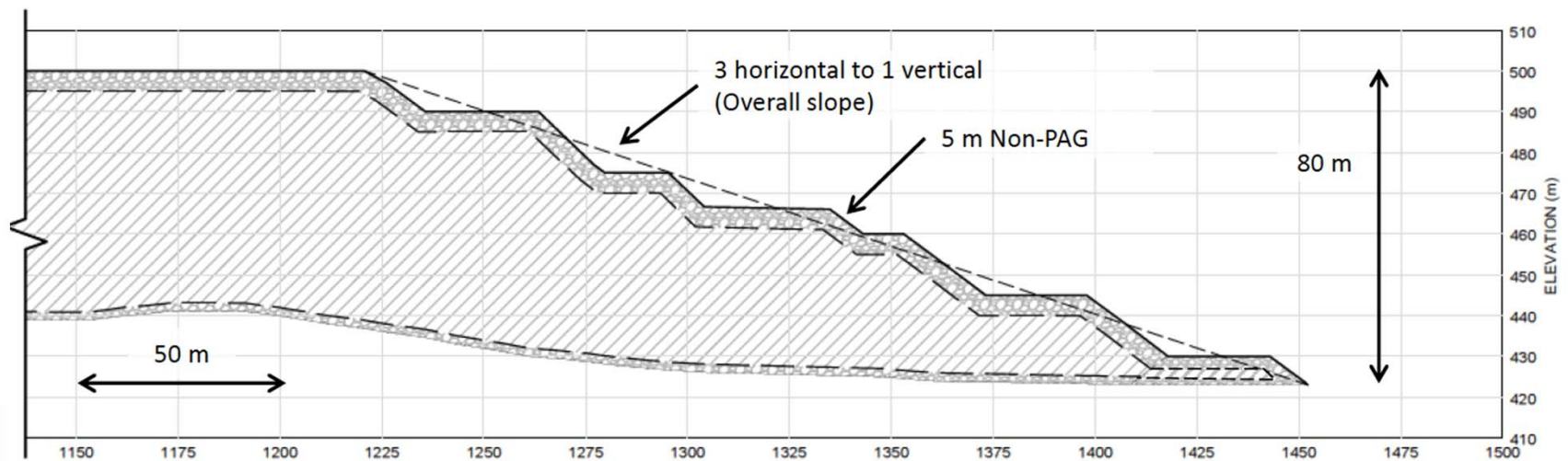
- Jay Project Waste Rock Storage Area (WRSA):
 - Designed for closure:
 - Basal layer of granite
 - Benched sideslopes achieve closure overall slope angle
 - Granite and metasediment co-deposited
 - Caribou ramps constructed progressively
 - Footprint reduced by offsetting height
 - 5m thick granite 'cap' constructed progressively

Table 6.x-2 Waste Rock Material Balance

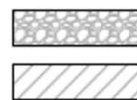
Construction Component / Material Type	Estimated Quantity (m ³)	Total (m ³)
2 m non-PAG basal blanket layer	5,022,000	75,819,000
Volume of non-PAG waste rock for mixed deposition	58,497,000	
5 m non-PAG cover	12,300,000	
Volume of PAG waste rock	26,127,000	26,127,000

m = metre; m³ = cubic metres; non-PAG = non-potentially acid generating; PAG = potentially acid generating.

Waste Rock and Ore Storage Management Plan (WROMP)



LEGEND



Non-potentially acid generating waste rock

Co-deposited waste rock (potentially and non-potentially acid generating)



Waste Rock and Ore Storage Management Plan (WROMP)

- Jay WRSA Monitoring:
 - Seepage sampled twice per year (established protocol)
 - Seepage results reported annually through Wek'èezhìi Land and Water Board
 - Seepage interpretive report every 3 years
- Physical stability inspections
- Waste rock sampled from pit benches (geochemical verification)
- Ground temperatures monitored

