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*(UNOFFICIAL TRANSLATION)*

**PASCUA LAMA PROJECT  
MINERA NEVADA COMPANY  
GLACIER MANAGEMENT PLAN IN THE RIO EL TORO BASIN**

**1 INTRODUCTION**

The following plan describes the method and management disposition of the glaciers sectors that must be removed during the life of Pascua Lama, as the open pit area is extended towards the position of the glaciers in the Rio El Toro river basin. It is estimated that 10 hectares of glaciers must be removed and adequately managed to avoid the instability of slopes and environmental impacts. The thickness of the glacier sectors that must be removed is estimated at 3 to 5 meters.

**2 MANAGEMENT PLAN**

- 2.1 The glacier sectors that must be removed will be determined with the necessary anticipation according to the updated mining plan.
- 2.2 The mining equipment shall be employed as needed for each glacier sector to be managed (basically bulldozers and/or front loaders).
- 2.3 The chunks of glaciers shall be removed with the mentioned machinery until the surface is clear (principally rock).
- 2.4 If necessary, controlled explosives shall be used, of small size, to remove the ice.
- 2.5 The chunks of ice that come apart and that are removed, until the level of the terrain is reached, shall be "pushed" or transported by the same mining machinery to an adjacent area, nearby but outside of the boundaries of the development of the pit.
- 2.6 The areas of disposal shall comply with the Basic characteristics cited in Section 3 below.

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### **3 CHARACTERISTICS OF THE SITES FOR DISPOSAL**

The sites for disposal of the chunks of glaciers shall comply with the following basic conditions:

- 3.1 They shall be located at a similar or slightly lower altitude than their original position.
- 3.2 They shall not be destined to other works, infrastructure, or project development, nor shall they compromise the safety of these if they are located downstream of the pit.
- 3.3 Preference shall be made for sites of low inclination, to minimize the possibility of downslope shifting. In the pit vicinity there is ample relative level terrain to dispose of the glacier chunks.
- 3.4 Notwithstanding the above, retention walls (bermas) shall be introduced and/or machinery shall level the terrain at the extremes, "downstream", to retain eventual ice collapse and avoid downslope slippage.
- 3.5 No gorge floors shall be used or sectors that might present significant surface water flow during the periods of ice melt.
- 3.6 The characteristics of the terrain or rock surface shall be similar to original sites (prioritizing the same geological formations and geomorphological configuration).

## **4 RESPONSABILITIES**

- 4.1 The definition of the glacier sector removal program, shall be incorporated to the mine development plan.
- 4.2 The specific Departments in addition to the Departement of Health, Safety and Environment, shall participate in the definition of the sites for glacier disposition, which shall approve the determined sites.
- 4.3 The Department of Health, Safety and Environment shall supervise the loading, transport and final disposal of the glaciers.
- 4.4 The monitoring of the safety conditions of the glaciers shall be informed frequently to the Management of the project and to the competent authorities.

## **5 ADVANTAGE OF THE METHODS**

The method previously described has the following advantages:

- 5.1 The controlled method permits minimizing the removal of glaciers to the least necessary, according to the advancement of the pit.
- 5.2 The chunks of glaciers removed shall be positioned similarly to their original position and basically within the same basin, minimizing the hydrological effects.
- 5.3 No acid water problems are generated (or accentuated) due to the meeting of the chunks of ice removed.