6. *Industrial Profile*

6.1 Overview

Primary sector

Mineral production in Northern Québec ranks this region third among the Québec mining regions. As in the Abitibi-Témiscamingue, with comparable substances produced, this region is also affected by pollution from past mining activities. Mining is indeed focussed on gold, nickel and polymetallic minerals (copper-gold and zinc-silver).

Mining activities require great quantities of water, especially during milling. Water comes from "fresh" sources (e.g. streams) of from recirculation of used water (e.g. from the tailings pond). Keeping mines dry also requires pumping out groundwater. Water table drawdown in the zone of influence sometimes creates supply problems, albeit temporary.

The main water-related problems are acidification resulting from acid-generating tailings ponds and contamination by heavy minerals.

The region has 59 mine tailings ponds covering a total surface area of 2560 ha. About 36% of this area is considered inactive since mine tailings are no longer deposited there; however, 51% of the area is covered by tailings that could be acid generating. The surface areas can be classified as follows:

Table 6.1: Active mine tailings ponds in Northern Québec

Number	Surface area (ha)	Potentially acid-generating	Basic	Neutral	Restored area (ha)
16	1 635	9 (930 ha)	0	7 (705 ha)	3

Effluents from active sites are controlled and must comply with the standards stated in Directive 19 of the Ministère de l'Environnement.Effluent compliance has greatly improved between 1989 and 1993 and has been over 97% since 1993.

Table 6.2: Inactive mine tailings ponds in Northern Québec

Number	Surface area (ha)	Potentially acid-generating		Restored area (ha)
		Number	Surface area (ha)	
43	925	11	388	429

Prior mining activities have left significant scars and have greatly affected fauna and water quality in certain lakes and streams, especially Watson Lake and the Plamondon and Kistabiche Rivers (by the Poirier Mine). The Watson Lake site, with its 352 ha of potentially acid-generating tailings, has been inactive since 1997. It will be reopened soon following the coming into production of the Bell-Allard deposit; it is therefore included in the active areas.

Among the 43 inactive sites, 18 were completely restored, covering a 429-ha area; this includes: 5 acid-generating sites covering 84 ha, 11 sites considered neutral covering 310 ha, and 2 basic sites covering 35 ha. It is noteworthy that the Poirier Mine site and its (strongly acid-generating) discharge, covering a total of 73 ha, are currently undergoing extensive rehabilitation work. This site is included in the restored areas as work should be completed this summer. Rehabilitation of inactive tailing sites is slow and the required work is often costly.