

B. Wastes, tailing ponds, and route of wastes

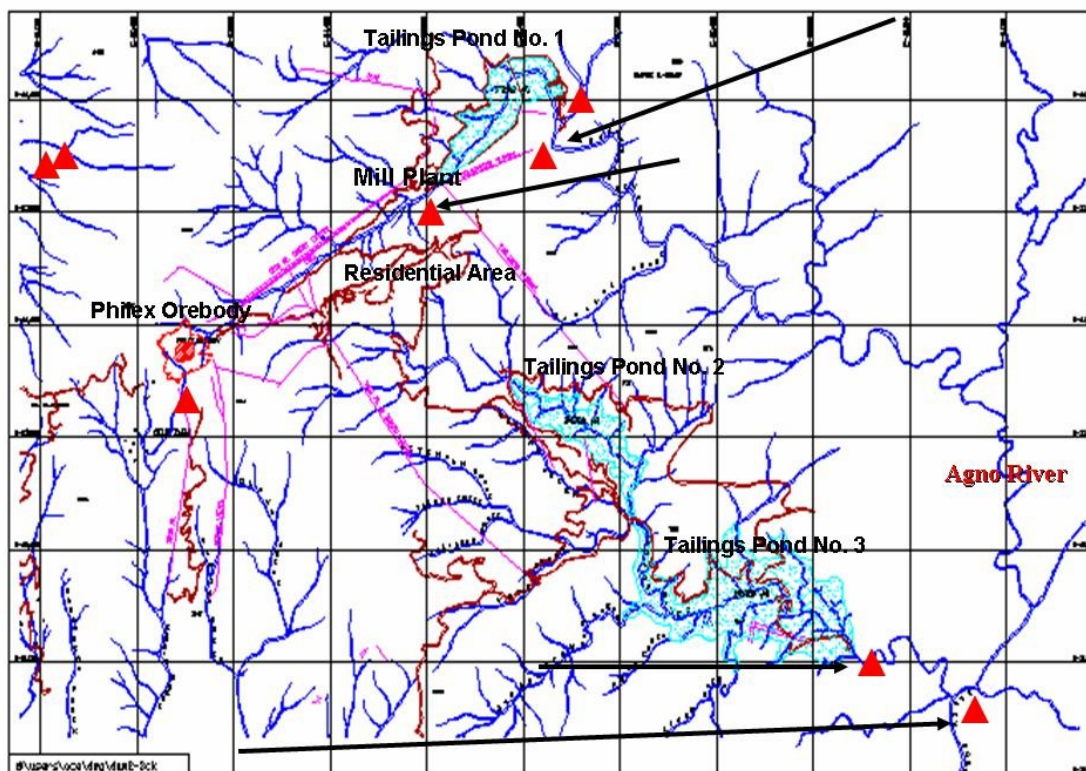


Figure 41. Map on Philex ore body, mill, residential areas, and tailing ponds

SunStar (2 February 2005) reports that in Philex mining operations, around 28,000 tons of ore are milled daily but only around 200 to 230 dry metric tons of copper are produced daily. The rest becomes the mine tailings impounded on tailing ponds. As mentioned, Philex Mines has three tailing ponds: tailing ponds 1, 2, and 3.

Analyzing Figure 42 page 33, the earth position of the Philex ore body/open pit mine is approximately in the vicinity of $16^{\circ}15'45.62''$ North $120^{\circ}37'18.87''$ East. Based on the shape of Philex tailing pond 1 on Figures 43 and 47, pages 33 and 35, as well as Google Earth picture on Figure 42, Philex tailings pond 1 is approximately in the vicinity of $16^{\circ}15'53.08''$ North and $120^{\circ}39'16.79''$ East.

Based on the location of Philex tailing pond 2 on Figure 41 above and Google earth picture on Figure 42, tailing pond 2 is approximately in the vicinity of $16^{\circ}15'16.62$ North and $120^{\circ}39'43.84''$ East. Finally, based on Figure 41 and Google Earth image on Figure 42, Philex tailings pond 3 is approximately in the vicinity of $16^{\circ}14'31.34$ North and $120^{\circ}40'45.48''$ East.

Figure 42 indicates that tailing ponds 2 and 3 are connected and Figure 45 page 34 indicate that both tailing ponds ultimately discharge into the Ago River. As early as 2001, the Department of Environment and Natural Resources-Cordillera (DENR-CAR) has already identified the three tailing ponds of Philex Mining Company as among the seven geo-hazards of mining in the region of the Cordillera, Philippines.



Figure 42. Philex open pit mine, tailing ponds, and nearby areas on Google Earth (labels are from Google Earth and not by the author of this work)

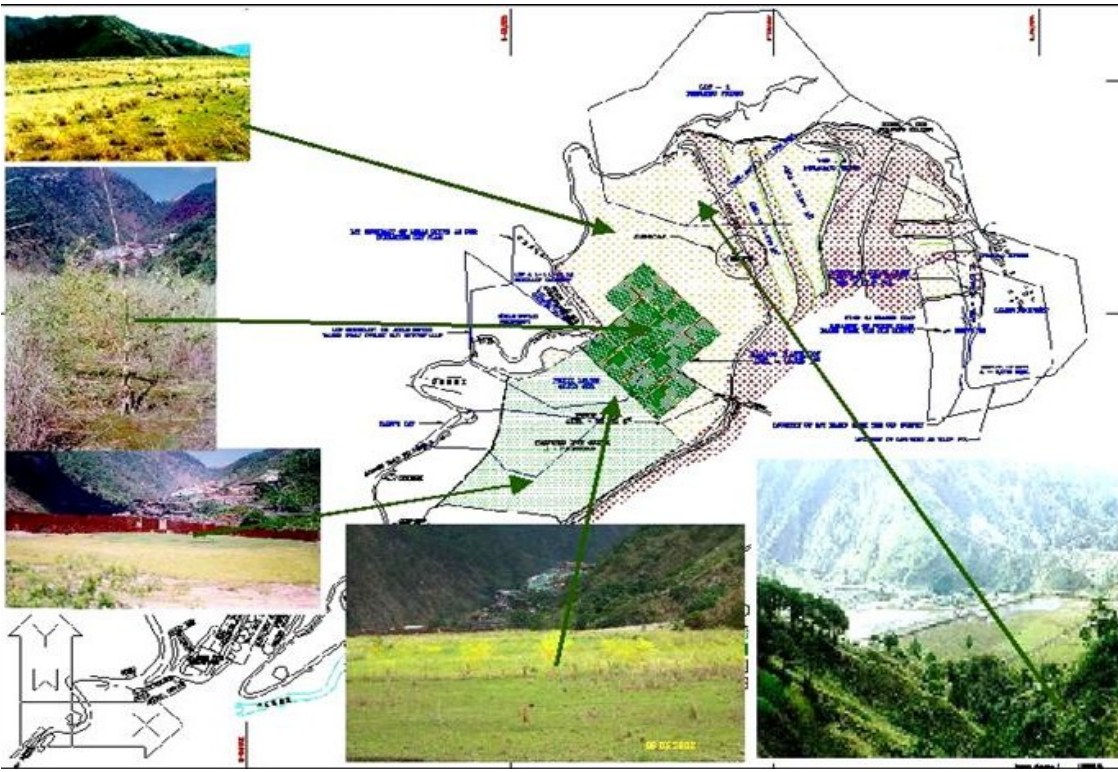


Figure 43. Tailing pond 1 undergoing rehabilitation as per description by Philex

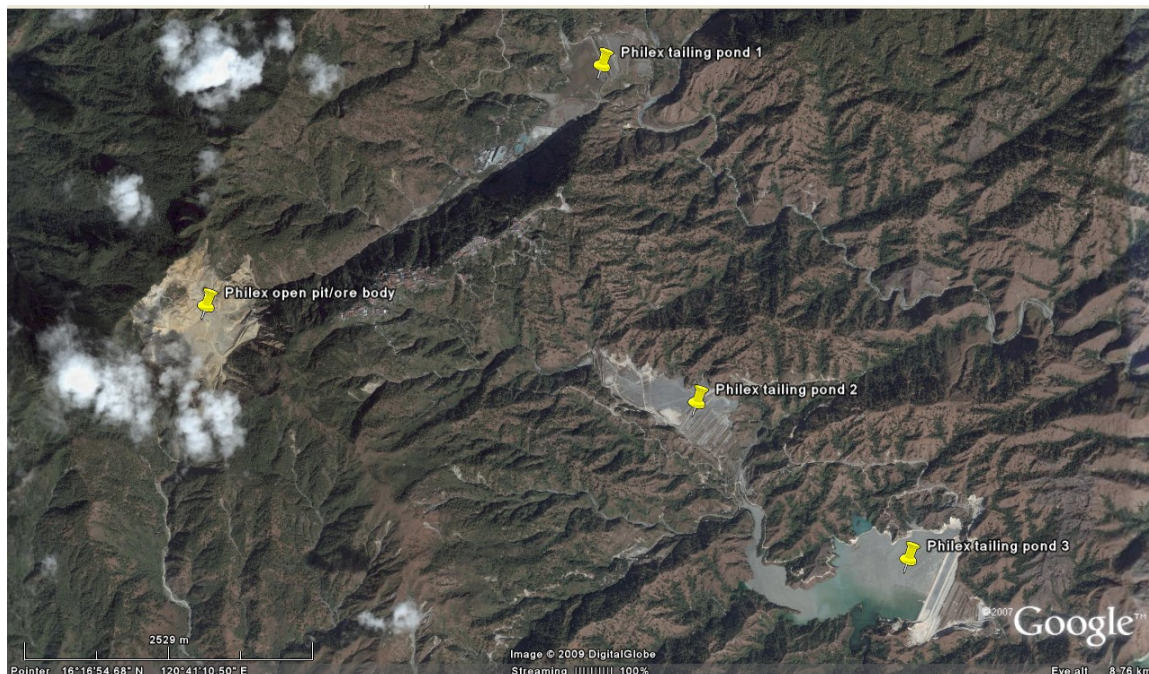


Figure 44. Philex open pit/ore body (Sto. Tomas II) and tailing ponds 1, 2, and 3



Figure 45. Philex tailing ponds 1, 2, and 3 and link to body of water (Agno River)



Figure 46. Philex tailings pond 1 then and now (26 hectares, expected useful life was 10 years, closed in 1981)

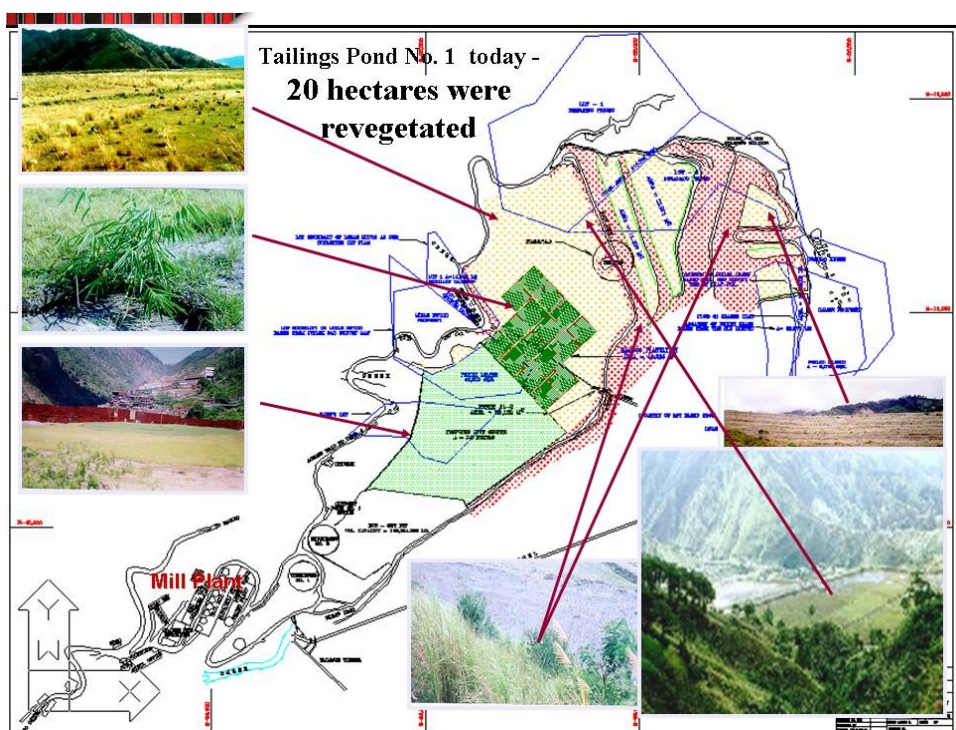


Figure 47. Year 2006 vegetation profile of decommissioned Philex tailing pond 1