



**FIGURE 4.** Distribution of  $^{18}\text{O}$  depleted (stippled pattern) and  $^{18}\text{O}$  enriched (cross-hatched pattern) whole rock  $\delta^{18}\text{O}$  values in the Noranda mining district, Quebec. X's indicate sites of volcanogenic massive sulfide mineralization. Note close correlation of low  $^{18}\text{O}$  "fingers" and sites of mineralization (From Cathles, 1993).