Ganque:

Oves mined from the earth are usually contaminated with large amounts of impurities such as soil, sand etc. These impurities are called ganque.

Enrichment of ores:

The process of removing the gangue from the ore is called enrichment of ore. The process is based upon the differences between physical and chemical properties of the gangue and the ore.

Extraction of metals low in Activity series

Metals low in the activity series are very unreactive.

The oxides of these metals can be reduced to metals

by heating above.

eg: i) Cinnabar (Hgs)

when it is heated in air, it is first converted into mercuric oxide (HgO). Mercuric oxide is then reduced to mercury on further heating.

 $2 \text{ Hqs}(s) + 20_2(g) \xrightarrow{2} 2 \text{ Hq0}(s) + 2 \text{ SO}_2(g)$ $2 \text{ Hq0}(s) \xrightarrow{2} 2 \text{ Hq}(2) + O_2(g)$

(ii) Cu₂S

Copper which is found as Cu₂S in nature can be obtained from its one by just heating in air. $2 cu_2 S + 30_2 (q) \xrightarrow{\circ} 2 cu_2 O(s) + 2 So_2 (q)$ $2 cu_2 O + cu_2 S \xrightarrow{\circ} 6 cu_2 (s) + So_2 (q)$