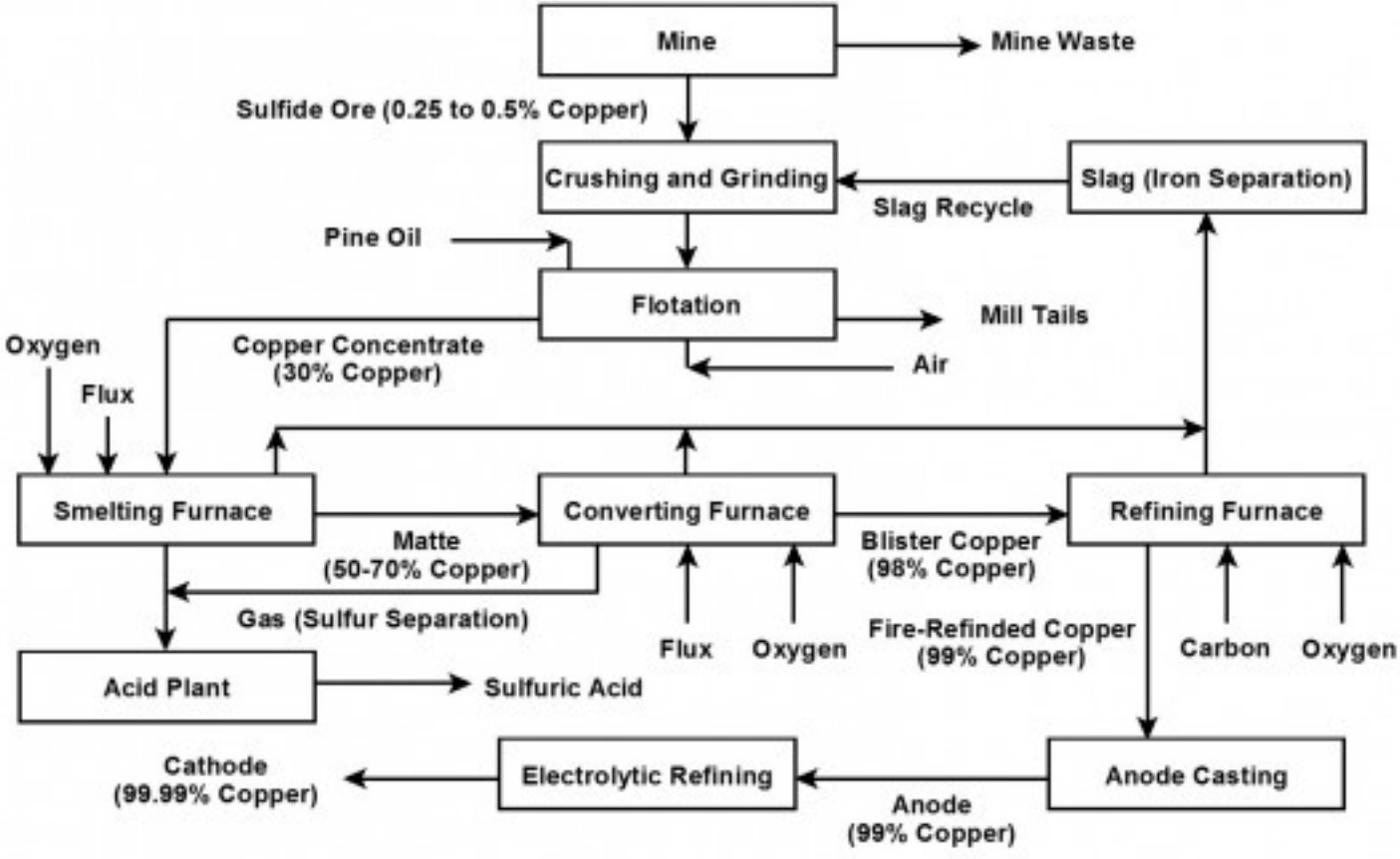
Mine
Mine Waste
Sulfide Ore (0.25 to 0.5% Copper)
Crushing and Grinding
Slag (Iron Separation)
Slag Recycle
Pine Oil
Flotation
Mill Tails
Oxygen
Copper Concentrate
(30% Copper)
Air
Flux
Smelting Furnace
Converting Furnace
Refining Furnace
Matte
(50-70% Copper)
Blister Copper
(98% Copper)
Gas (Sulfur Separation)
Flux
Oxygen
Fire-Refinded Copper
(99% Copper)
Carbon
Oxygen
Acid Plant
Sulfuric Acid
Cathode
(99.99% Copper)
Electrolytic Refining
Anode Casting
Anode
(99% Copper)