RECOVERY OF VALUE-ADDED PRODUCTS FROM RED MUD AND FOUNDRY BAG-HOUSE DUST

Use Foundry bag-house dust as carbon source to reduce iron oxide in red mud.
Objectives:

- Literature review of past work on red mud & bag-house dust utilization
- Complete elemental, mineralogical & particle size analysis.
- Solid state reduction experiments for feasibility – magnetic separation
- Smelting reduction feasibility – metal-slag separation
- Non-magnetic/Slag analysis for Phase II value recovery
- Current methods attempted for dissolution for ICP analysis
- Lithium Borate
    - Dissolve with 20% Nitric Acid
- Sodium Peroxide
    - Dissolve with 25% HCl
- Current methods attempted for dissolution for ICP analysis
- Lithium Borate
    - Dissolve with 20% Nitric Acid
    - Some precipitates to be filtered using Millipore

Process Flow