

Engineering Service 1

Process Feasibility Evaluation

Content

- **Introduction** Who has performed this study and who is the client.
- General description of the process Block diagram.
 - Definition of feed materials
 - Pre-preparation
 - Leaching procedures and filtration
 - Metal separation and purification
 - Preparation of product
 - Bleeds treatment Residues and effluents (emissions)

Process documentation

- Process design capacity
- Process flow and instrumentation diagram (P&ID)
- Main equipment specification list
- Investment Cost Main and auxiliary equipment
 - Main and auxiliary equipment
 - Installation material Piping and cabling
 - Process operation and control Necessary instrumentation
 - Media support Cooling tower and compressor Storage farm First fill of chemicals – Spare parts
 - · Documentation and confirmation of process design
 - Installation, commission and training

Buildings and constructions cost

- Steel and concrete supports and stands
- Lifting and transportation devices
- Office and service spaces
- Ventilation

Operation costs

- · Raw material cost (destruction cost)
- · Chemicals and energy
- Maintenance and service
- Personnel staffing

Products revenue

Economical summary

- Investment, Equipment building and support
- Sales Revenue
- Operating cost
- Process feasibility
- Total production result, ROA (return on assets)

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