BluOre

The Mining Process Redefined

Continuous, Chemical-Free, High-Yield Mineral Processing

BluOre
Solutions Beyond Boundaries

Process Innovation

- Conventional mineral processing suffers from:
  - Frequent stoppages & manual cleanup
  - High water & power consumption
  - Low recovery efficiency
  - Standardized machinery not suited to ore composition
- Result:
  - Higher OPEX
  - Environmental burden
  - Reduced mineral recovery

“BluOre re-engineers the process — not just the plant.”

BluOre's Philosophy

- **Process-first engineering**, not machine-first procurement
- **Site-specific mineral intelligence** drives:
  - Flow design
  - Equipment configuration
  - Energy optimization
  - Yield maximization

"Maximum mineral value with minimum environmental impact"

Breakthrough

– Continuous Heavy Mineral Separation

- **Industry Limitation**
  - Heavy mineral separation is typically **non-continuous**
  - Requires **shutdowns for slime removal & dewatering**
  - Leads to:
    - Productivity loss
    - High labour dependency
    - Inconsistent output
- **BluOre Innovation**
  - Integrated **Ultra-Low Water Desliming + Continuous Dewatering**
  - Enables:
    - Fully continuous processing
    - Break-free operations
    - Stable recovery efficiency
- **Proven Deployments**
  - Southern India
  - Indonesia

Gold Mining Optimization

– Africa Case Studies

- **Field Engagements**
  - Somaliland
  - Ghana
- **Our Contribution**
  - Studied **existing factory processes**
  - Introduced **targeted process modifications**
  - Achieved:
    - Reduced power consumption
    - Improved mineral yield
    - Zero chemical usage
- **Strategic Shift**
  - Focus on **total mineral separation**
  - Gold recovered as high-value by-product

"This creates **multi-mineral revenue streams** instead of single-metal dependency."

Standard Mining Equipment

– The problem

- Machines sourced from global markets are:
  - Generic & standardized
  - Not tuned to ore composition
- **Consequences**:
  - Energy wastage
  - Manpower inefficiency
  - Low recovery percentage
  - Higher tailing losses

BluOre's Customized Engineering Approach

- **Raw mineral composition analysis → Process design → Machine design**
- Collaboration with manufacturers to:
  - Modify geometry
  - Optimize screening & washing stages
  - Improve separation physics
- Outcome:
  - Higher yield
  - Lower energy consumption
  - Reduced operating manpower
  - Improved sustainability

"Our knowledge is the core intellectual asset."

Patent-Backed Process Differentiation

- **Patent 1: Ultra-Low Water Desliming**
  - Reduces water consumption from **~15,000 L/ton → ~650 L/ton**
  - **~96% freshwater reduction**
  - Achieves **≤1000 ppm slime purity**
  - Scalable **100–5000 TPD**
  - Critical for **water-scarce mining regions**
- **Patent 2: Efficient Dewatering System**
  - Final moisture reduced to **~3%**
  - **Fast cycle (~20 minutes)**
  - Up to **~200 tons/day throughput**
  - Improves:
    - Transport efficiency
    - Storage stability
    - Energy usage

"These patented systems directly enable continuous processing."

Environmental & Sustainability Impact

- Zero chemical processing
- Massive water conservation
- Reduced tailing contamination
- Lower carbon footprint via energy savings
- Supports:
  - **ESG** compliance
  - **Responsible** mining mandates
  - **Long-term** operational licensing

Thank you

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